Company analysis

Cleantech Invest

7.11.2016

FIM

Cleantech Invest

Recent developments in Cleantech Invest and the portfolio companies

Recent development

- The combined revenue of associated portfolio companies of Cleantech Invest ("CTI") have been continuing to grow rapidly. Annualized H1/2016 revenue growth was 214%.
- New investment has been ResQ Club which is a company that enables restaurants to reduce waste and provides consumers inexpensive meals by connecting restaurants and consumers with a mobile application. Investments were made to existing portfolio companies and a special purpose vehicle ("SPV") was used in Swap.com and Watty.
- CTI has increased its efforts on building international investor networks by establishing "pop-up" offices in Berlin, Los Angeles and Stockholm. We see it as strategically sound to connect with investors outside Nordic in effort to market and network CTI and its portfolio companies.
- CTI executed parallel listing in Stockholm successfully in April 2016. Offering was oversubscribed by 3,6x times.
- CTI has announced that associated company Enersize is planning an IPO in Sweden during 2017.
- CTI mid-term targets are as follows. By the end of 2017 the company's objective is to have been involved in the IPO of two to three and the exit of one to three of its portfolio companies. The number of portfolio companies is expected to be at 15. Achieving the mid-term targets seem to be on track.
- Cleantech Invest share is trading at €1,35 and at discount to our value analysis (see page 12). Value creation has been driven by mainly by Nocart and Enersize.

The descriptions, latest developments, and value analyses of CTI's portfolio companies can be found on the following pages of the report.

FIM Research

Aaron Kaartinen (09) 6134 6430, aaron.kaartinen@fim.com

Kim Gorschelnik (09) 6134 6422, kim.gorschelnik@fim.com

CTI's portfolio companies

Company	Description
Aurelia Turbines	The company is creating an ultra-efficient microturbine for distributed pow er generation
Eagle Filters	The Company provides air filtration solutions that imporve performance of gas pow er plants
Enersize	The company delivers energy savings for industrial compressed air energy systems
Lumeron	The company is a financial services provider for the energy efficiency assets market
Metgen	The company manufactures enzymes to be used in, for example, improving energy efficiency in the pulp and paper industry
Netcycler (Sw ap)	Operating under the name Sw ap.com in the US, the company is an internet-based department store for second-hand goods
Nocart	The company creates utility grade pow er generation solutions for distributed energy
Nuuka Solutions	The company creates softw are to help real estate businesses increase energy efficiency and monitor sustainable development
One1	The company makes energy islands in w hich thermal energy can be generated in a centralized manner for neighborhoods and large buildings
Oricane	The company specializes in data transfer algorithms that can cut back energy use in internet equipment and database systems
PlugSurfing	Company's app enables EV drivers to find and pay for charging at charging stations
ResQ Club	The company develops and operates a platform that allow s customers to purchase edible food from being w asted
Sansox	The company has created an energy-efficient replacement solution for w ater oxidation pools
Savo-Solar	The company makes the w orld's most efficient solar thermal collectors and absorbers
Sofi Filtration	The company specializes in industrial w ater filtration
Watty	The company creates energy consumption management solutions for households

Source: Company, S-Bank (FIM)

Analysis of portfolio companies
Summary

Potential and risk
We have analyzed the potential and risk of each portfolio company individually. The resulting positions can be found in the graph adjacent. In portraying potential we have used a scale of 0-10 to compare the financial success of each company. This makes the analysis a subjective one. We have also analyzed risk in a similar fashion. Due to the nature of the companies, they all carry quantitatively high risk and high potential.

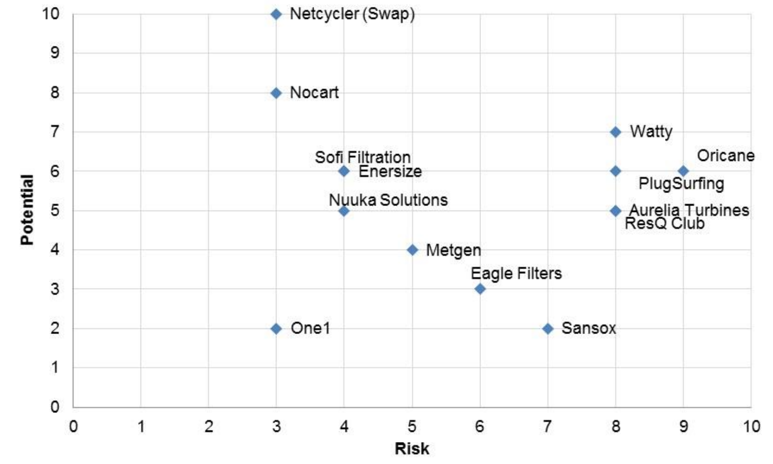
When analyzing the companies with their business models and market sizes, Netcycler (Swap) stands out with potential for explosive growth. With the case of Oricane, the high potential can be explained with the nature of software trade and the benefits of the product itself. The scalability of both companies is excellent. Furthermore, the digital nature of both businesses results in not only significant potential but also notable risk. Nocart has continued to develop favorably and offers good potential with more limited risk.

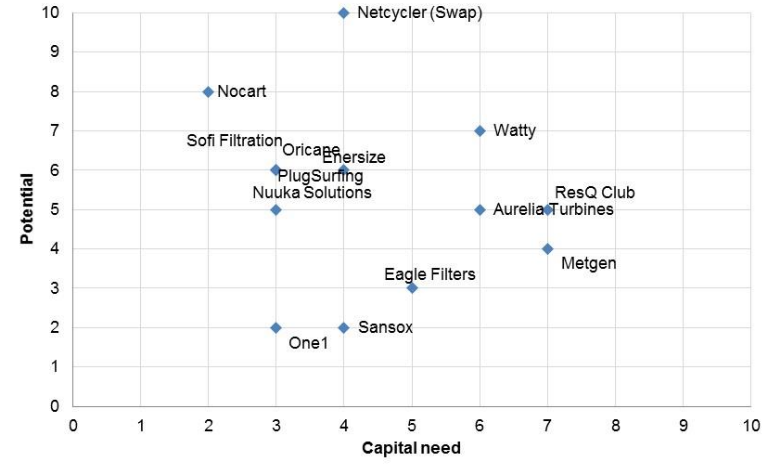
We may use the developmental stage of each company to evaluate its risk. We believe Aurelia Turbines, Sansox, PlugSurfing, ResQ Club and Watty carry the greatest risks. The aforementioned companies are all in their early developmental stage. Oricane's high risk has to do with the achievement of its high financial and operative goals.

The binary nature of Netcycler's (Swap) and Oricane's business models is a risk factor, this risk has decreased significantly for Swap.com since the growth trend seems to be stable. Nuuka Solutions and Nocart carry smaller risks, which is explained by the expected positive near term cash flows.

Potential and capital need
CTI looks to avoid investments into capital-intensive companies and aims to invest in companies with a highly scalable business model. Capital need describes the amount of capital needed for business growth in the medium term.

Nocart's positive earnings improving financial performance is diminishing its capital needs. Due to their early stage of development, we assess the capital need of Aurelia Turbines, Metgen, ResQ Club and Watty as relatively significant. We have assessed each investment opportunity individually on the following pages.

Potential and risk


Potential and capital need


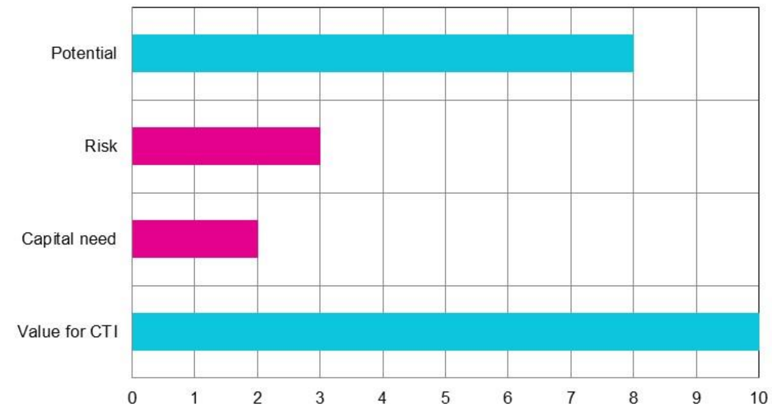
Source: Company, S-Bank (FIM)

Analysis of portfolio companies
Nocart and Netcycler (Swap.com)

Nocart
Business: Nocart creates utility grade power generation solutions for distributed energy. The strength of Nocart's system lies in the fact that the power generation units make it possible to produce electricity simultaneously and efficiently from almost any source of renewable energy. Nocart's market segments include small power plants below 1 MW (off-grid) and 1-20 MW grid connected renewable power plants.

Current stage and future developments: In January company announced three contracts in Africa with total value of €12,9 million. These orders set-up a good start for the year and currently growth is more likely to be limited by management resources than customer demand. Company estimates 2016 revenue to reach approximately €16 million and the pipeline indicates continued growth trough 2017 and into 2018. Nocart has identified project opportunities in the range of 0,6 billion euro, which is signaling good long term prospects. The company's business model has shifted towards focusing on more comprehensive product solutions (including power production). Nocart integrates different power sources and it has further identified a need for project financing. Nocart seeks financing partners in effort to deliver utility type offering. Company has identified a competitive edge with its partners especially in waste-to-energy as a power source. Africa is the main market-area for Nocart.

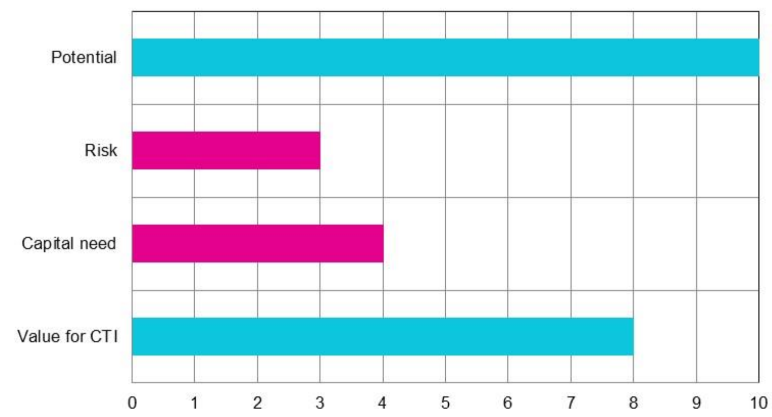
Assessment: Nocart's potential is significant. The company has assessed that their relevant market is very large in comparison to current size. In our opinion the company's business risk is low. This is based on the company's existing sales and backlog and its strong foothold in the developing markets. Nocart has also been profitable since 2012. The current profitable business and the outsourced production keep capital needs small. The high potential combined with a relatively low risk and small capital need make Nocart currently the most important portfolio company for CTI's value-creation potential.

Positioning


Netcycler (Swap.com)
Business: Operating under the name Swap.com in the US, Netcycler is an online consignment store. Swap.com positions between Amazon (e-commerce) and eBay (a marketplace for transactions between individuals), and connects with CTI's efficient usage of natural resources (recycling). Special focus on lower cost items in the consignment market.

Current stage and future developments: Swap.com has been able to sustain very rapid growth rate with average month-on-month growth of approximately 15% for a 3rd consecutive year. Summer sales is seasonally slower (as was in previous year) and back to school sales has picked up strong after slight delay due to warm weather. The offering has been widened to men's clothing and swap.com is now selling clothes in all categories. Company is currently preferring growth over profitability and financing needs have been growing due to scaling-up marketing costs. Swap.com raised €8 million in H1 and is currently planning a larger financing round as scaling marketing costs require additional capital.

Assessment: We have evaluated Netcycler's potential as very high. This business model is binary by nature - the competitive advantage gained by the largest competitor is significant. Swap.com has developing steadily and the potential is visible. The overall risk is below average compared to the other portfolio companies. Capital need comes from the high growth targets, and additional capital is needed for marketing efforts. The capital need of the current business moderate in connection to the market value and is reduced through SPV financing model. For CTI's value-creation potential swap.com is significant particularly due to the business's high potential.

Positioning


Source: Company, S-Bank (FIM)

Analysis of portfolio companies
Enersize and Nuuka Solutions

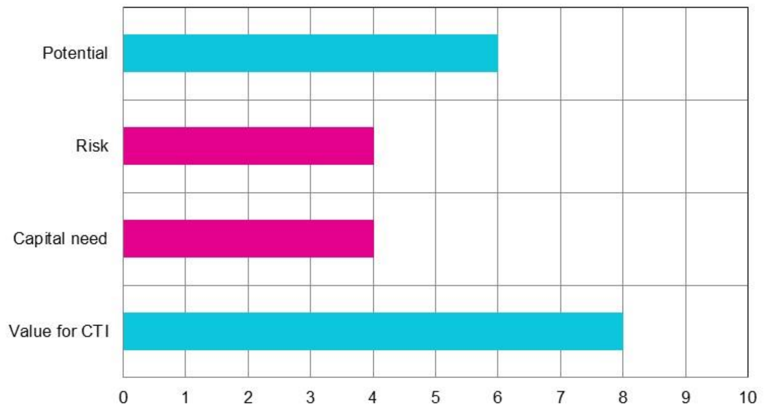
Enersize

Business: Enersize delivers energy savings for industrial compressed air energy systems. According to the company, their systems can be used to decrease the energy consumption of industrial compressed air energy systems by up to 30% by optimizing the compressed air system.

Current stage and future developments: The company has been targeting the Chinese market and its first major Chinese customer has entered into revenue sharing phase in August 2016. Enersize received the first €0,3 million payment based on accomplished energy savings. Total expected income from the contract period is estimated to exceed €1,2 million. Chinese automotive manufacturer Beiqi Foton Motor Co. project in Beijing factory was announced in January 2016. Foton operates more than 10 similar factories in China. Currently negotiations are ongoing with several large customer projects including leading steel manufacturer and global automotive manufacturer. Company has a business model that is based on revenue split from savings created. This works as powerful leverage because the costs for each project are low. Enersize has a new executive chairman to lead the company in to IPO and public trading.

Assessment: The use of compressed air consumes a lot of energy worldwide (over 5% of the world's energy needs), which means energy saving systems in this field have significant potential. We believe that the risk carried by the company is lower than average due to successful pilot projects and proven revenue model. Capital need is also expected to be below average due to successful project deliveries and high estimated profitability. Enersize's importance for CTI's value-creation potential is high due to CTI's share of ownership and above average potential.

Positioning



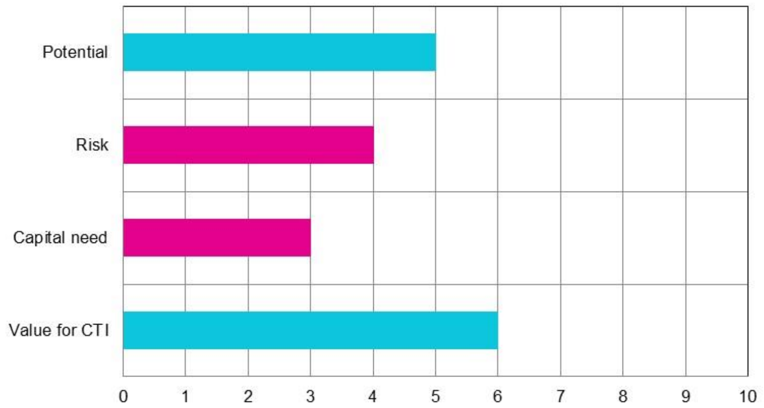
Nuuka Solutions

Business: Nuuka Solutions creates software to help real estate businesses increase energy efficiency and monitor sustainable development. The company focuses on larger real estate complexes. According to Nuuka Solutions, the company's solutions can be used to create significant (10-30%) savings through improved energy efficiency.

Current stage and future developments: Additional investment in sales efforts is an important aim for the company and the current sales model is based on partnerships ranging from small automation companies to leading players such as Caverion. Furthermore, real estate funds can roll-out the product in new funds. Nuuka is also offering air quality measurements that are not included in typical offering by competitors. According to Nuuka Solutions their relevant market in the Nordic and Baltic countries tallies up to 1.5 million pieces of real estate. The company's has currently over 600 buildings in system (300 at the beginning of the year). Nuuka has successfully entered the market in Netherlands and Belgium and is actively expanding its international reach and has taken first steps to enter the Chinese market. In Netherlands Nuuka is partnering with Sweco. Furthermore, new CEO has been hired to step up international marketing efforts.

Assessment: Nuuka's potential is moderate. The risk is lowered by the fact that the company has a finished service for which commercialization has begun successfully. Also, the company has signed contracts with in Nordics and Netherlands, meaning that the geographical expansion outside of Finland has begun succesfully. Capital need is low and mainly centered on increasing sales efforts. Due to Nuuka's fair potential and CTI's large share of ownership, the investment into Nuuka Solutions is significant for CTI's potential for value creation.

Positioning



Source: Company, S-Bank (FIM)

Analysis of portfolio companies
Aurelia Turbines and Eagle Filters

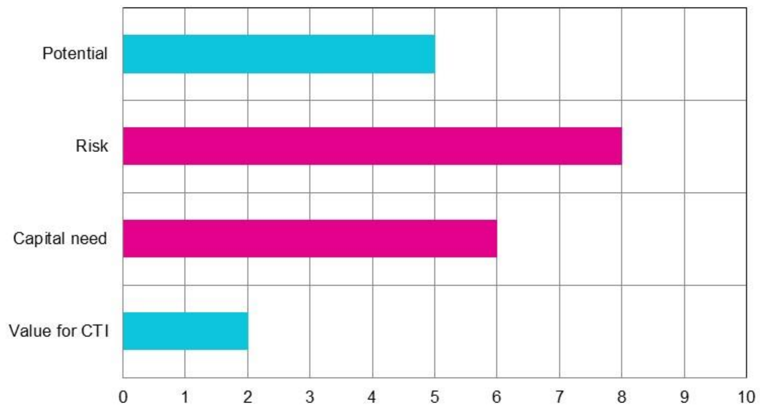
Aurelia Turbines

Business: Aurelia Turbines is creating a new, ultra-efficient microturbine for distributed power generation. It is being developed in cooperation with Lappeenranta University of Technology (LUT). The company's product is a combination of it's own innovation paired with LUT's 30-year long research in high-speed technology. The company's patented microturbine, currently in simulation stage, has proven very efficient in tests and offers 30% efficiency improvement compared to traditional micro turbines and 9% compared to best gas engine.

Current stage and future developments: The company has been in R&D phase, but offer negotiations are currently underway and two sales agreement has been signed. Prototype testing has been delayed again by approximately six months. The value of a single shipment is high because the unit price for the product is around 0,4 MEUR. The company owns an extensive portfolio of patents and has signed letters of intent for the delivery of around 250 turbines during the company's first 3 business years with value in excess of 100 MEUR.

Assessment: Aurelia Turbines is in very early commercialization phase. The potential market for microturbines is significant (under 3,5MW is approximately 30 billion euros), and thus if successful, the company may prove highly potential. However, as an early stage investment we believe the risk is still very high. According to our evaluation capital need is relatively low, and the quantity of staff is small during this stage of development. Even if Aurelia Turbines reaches its targets, its effect on CTI's value will remain relatively small due to the small share in ownership.

Positioning



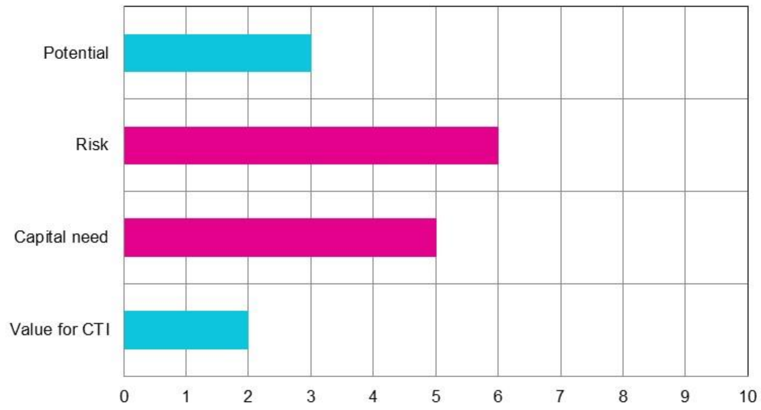
Eagle Filters

Business: Eagle Filters manufactures and develops gas turbine filters for utilities. Eagle Filters has developed patented technology that improves the capacity utilization of gas fired power plants with super efficient air filtering solutions. The product decreases the need to clean the gas turbine to once a year in connection with the annual maintenance. This decreases the need for cleaning the turbine in three month interval as is done with traditional filters. This can save up to several millions of lost production capacity annually.

Current stage and future developments: Eagle Filters has been operating since 1995. It is currently under restructuring due to weak demand in Europe due to low utilization rates resulting from low price of emission rights. Fire in the factory has been a headwind this year. In developing markets the company is considering changes in the pricing of the product to be based on revenue sharing model from cost savings. Furthermore, one of the largest turbine operators has used the filter in pilot testing with good results.

Outlook: Eagle Filters potential is moderate as the market is large but the customers are rather conservative in applying new technology. The risk is above average as the company is currently under restructuring. However, the product has reached the market and the company has been operating for 20 years. The need for capital is average. The product is manufactured in-house which requires capital if growth accelerates significantly but R&D and marketing costs are perceived to be limited. Value for CTI is below average.

Positioning



Analysis of portfolio companies
MetGen and One1

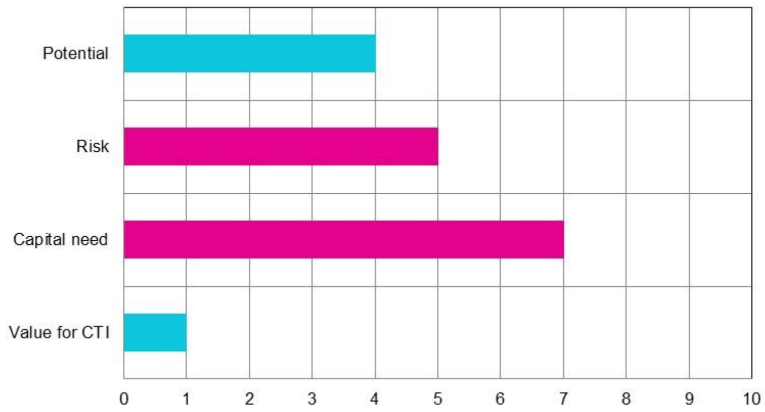
MetGen

Business: MetGen manufactures enzymes to be used in, for example, improving energy efficiency in the pulp and paper industry and efficiently turning bio waste into bio fuel. MetGen's innovations are used to solve problems related to biomass.

Current stage and future developments: The development and commercialization of new applications for the product are crucial for the future success of the company. Metgen has launched three new products and filed five new patent applications. There are 25 customers in sales pipeline and two commercial customers and eight in industrial trials stage. Company also added sales agents in Germany and Brazil. Metgen received large funding from EU.

Assessment: We believe that MetGen carries fair potential. Even though the manufacturing of the enzymes has been outsourced, the need for capital in R&D is high. This is supported by the fact that the company has needed new capital for its development. For this the funding has come from notable venture capitalists in this field. Due to the new investments, CTI no longer has a representative on MetGen's board of directors. The company's capital need and CTI's small share of ownership limit MetGen's value-creation potential.

Positioning



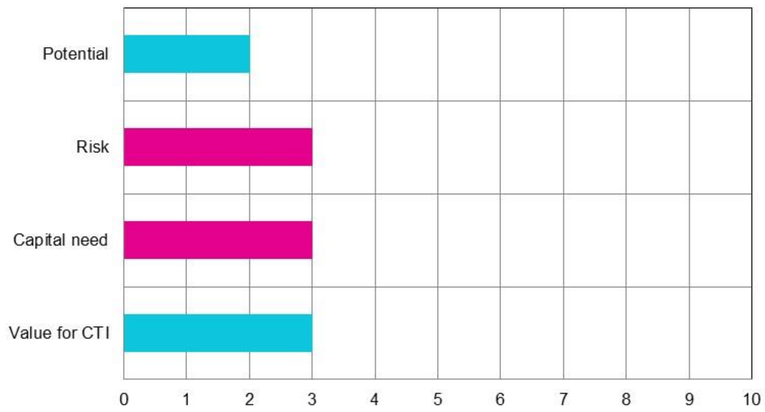
One1

Business: One1 makes energy islands in which thermal energy can be generated in a centralized manner for neighborhoods and large buildings. The company says its solutions can create up to 20% savings in costs compared to building-specific ground heat and solar energy solutions. One1's solutions are suitable for areas in which building district heat is not viable. The company's clients are energy companies.

Current stage and future developments: The company already has good reference customers in Finland. Co-operation agreement including ownership with two regional utilities (Lahti Energia and Pori Energia) has lead to new projects. In the long term the prospects are still interesting, as funding is inexpensive and the price of district heat is rising. The advancement of commercial projects is the company's short-term goal.

Assessment: In our opinion One1's potential, compared to CTI's other portfolio companies, is below average. The company has good reference deliveries, which decreases risk, but is yet to make a commercial breakthrough, although first larger projects have been signed. Since energy companies with strong balance sheets are financing One1's projects, its need for capital is small. One1's value-creation potential for CTI is average.

Positioning



Source: Company, S-Bank (FIM)

Analysis of portfolio companies

Oricane and PlugSurfing

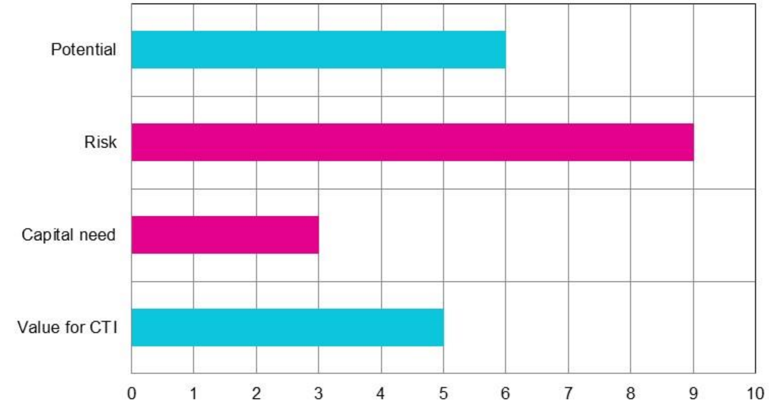
Oricane

Business: The company specializes in data transfer algorithms that can cut back energy use up to 50-95% in internet equipment and data base systems. The Internet is increasing its share of world energy consumption the fastest.

Current stage and future developments: Oricane has made progress with commercialization. A deal was announced where Mosys customers can decide it they want the Oricane algorithm (BioCAM) to its Programmable search engine platform. However, the revenue from this agreement is hard to estimate beforehand.

Assessment: According to our assessment, Oricane carries a high potential as the benefits gained by using the company's software seem to be very large. The company is still in a binary phase as the commercialization efforts have not resulted in clear visibility of income streams. Capital need of the company is due to negative cash flow, but the business is scalable (software). Due to Oricane's high potential, the company carries average value-creation potential for CTI. The value is limited due to the binary business model.

Positioning



PlugSurfing

Business: PlugSurfing is a Berlin based company that has developed a mobile application for electric vehicle (EV) drivers. The application is used to find EV charging stations and enables customers to pay for charging. Furthermore, customers are able to share charging station information through user community. Currently the application is available in Germany and Netherlands.

Current stage and future developments: Company was founded in 2012 and currently the company has two sources of income. PlugSurfing takes a sales commission of up to 20% from charging. However, many of the charging stations are currently free which limits current revenue generation. Second income stream is selling anonymous data of charging customers to partners in the EV sector. The focus of near term development is on customer base growth and the development of revenue model.

Assessment: EV market is growing very rapidly and is of interest to for example large automotive companies. PlugSurfing has an interesting position with valuable access to customer information. Therefore, we see significant potential in the company value. However, the market is in early stages and the revenue model is not fully developed, although progress has been made. We see significant risk in realizing the initial potential of the company. Capital need is perceived to be fairly low as the software company has good operational leverage and it already has two different revenue sources. Value for CTI remains limited due to high risk and small share of ownership.

Positioning

Analysis of portfolio companies
ResQ Club and Sansox

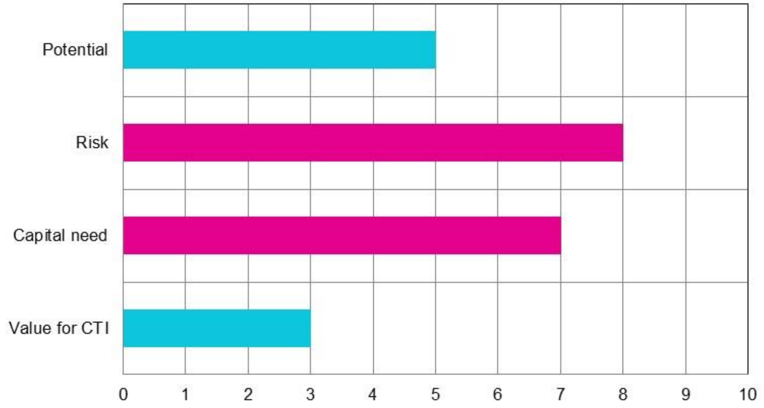
ResQ Club

Business: The company develops and operates a location-and-time-sensitive market platform that allows customers to purchase at a discount edible food from being wasted. They purchase portions via the app and retrieve the portions form the provider´s venue. This way restaurants, bakeries etc. can turn their servings surpluses into a opportunity to earn additional income and attract new clients.

Current stage and future developments: ResQ Club was established in 2015 and has been growing rapidly. Company has over 50 000 registered users and over 600 portions are “rescued” daily. The company is expanding in Europe and has international operations in Amsterdam, Tallinn and Stockholm. New markets are expected to be announced shortly.

Assessment: According to our assessment, ResQ Club carries average potential in medium term considering high scalability of the business model with early stage of the company. The company is still in early phase. Capital need of the company moderate due to negative cash flow and marketing costs. ResQ Club carries currently relatively low value-creation potential for CTI due to early stage of the company.

Positioning



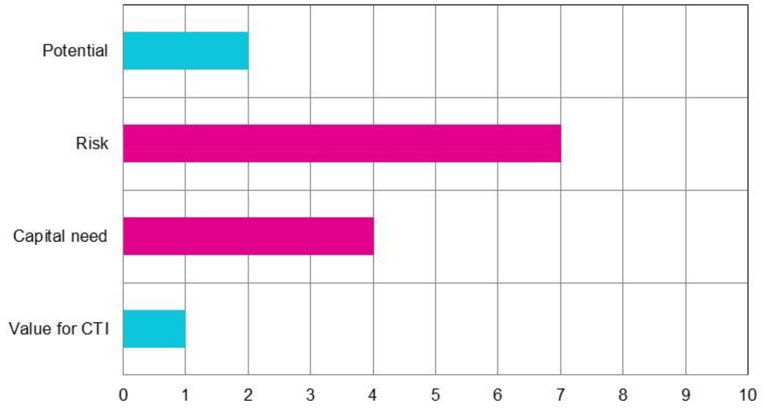
Sansox

Business: Sansox has created an energy-efficient replacement solution for water oxidation pools. Oxidation plays a crucial role in water treatment. For example, it allows for the optimal functioning of the deposition processes for metals and other solid substances. Sansox’s oxidation system, which may be attached directly to water circulation, can completely or partially replace expensive oxidation systems now used by industry.

Current stage and future developments: The company’s product is in the pilot phase and being used in fish farming and at an aluminium can factory. First small deals has been signed. As its unit price is rather low, scalability is important for Sansox’s product. Currently there are ongoing pilot in irrigation water system in Spain and the results are due shortly. Irrigation would be a scalable business and therefore the results are important.

Assessment: The water oxidation systems market is very large (10-20 bln euros globally). Sansox’s potential is, however, reduced due to the challenges of scalability. Company has been unable to find an end-use that has scalability, which lowers the potential of the company. Production has been outsourced, which lowers capital needs, and the company’s structure is rather lean. Sansox value-creation potential for CTI remains limited due to low potential, high risk and CTI’s small share of ownership.

Positioning



Analysis of portfolio companies
Sofi Filtration ja Watty

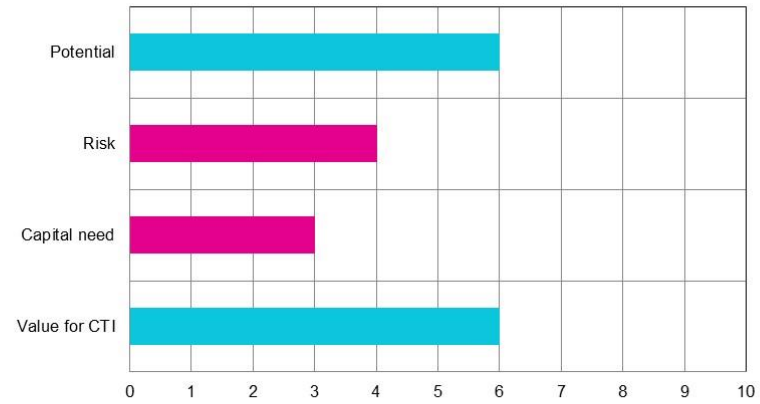
Sofi Filtration

Business: Sofi Filtration is a company that specializes in industrial water filtration. The company's main product is an automatic microfiltration system that uses new cross-flow filtration technology. With this system it is possible to economically filter large amounts of industry process waters that contain fine solid particles. The product's ability to self-clean and filter precisely give it a competitive advantage.

Current stage and future developments: The company has had advances in finding scalability. Previously the sales effort was directed in mining. Now new business opportunities are seen in utility scale power plant scrubbers, fire boilers, district heat and infrastructure construction. Identified deal opportunities has grown significantly and sales are accelerating rapidly. Sofi has opened an office in Texas which is used to analyze possible use cased and first deal in the US is in making.

Assessment: Due to the fact that they are rare, innovations related to water technology are generally considered interesting. We assess Sofi Filtration's potential above average when compared to CTI's other portfolio companies. Risk related to the technology is low, the product is protected with patents, and commercialization is gaining traction. We see potential due to advances in finding scalable client industries and increased potential deals and international efforts. Due to the fact that production has been outsourced, capital need is low. The company's value-creation potential is above average.

Positioning



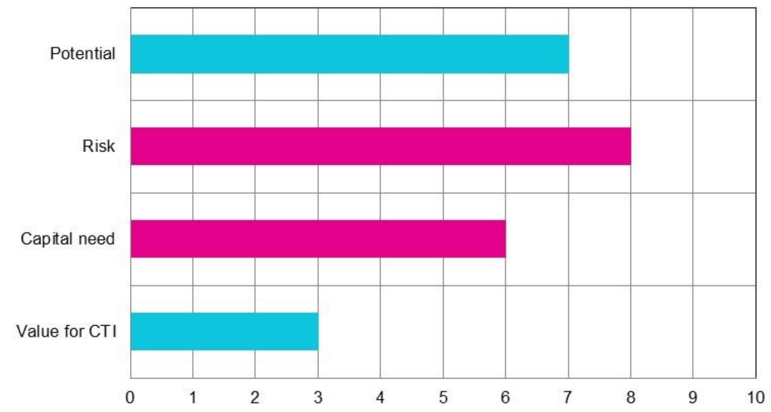
Watty

Business: Watty is as Swedish company that provides households a product that identifies energy using appliances in the home with one low-cost hardware. The Watty solution (hardware and algorithm) can automatically identify what energy-saving actions or products are suitable for each home.

Current stage and future developments: Watty has an interesting offering for households that enable customers to reduce their energy costs and compare the use of energy. Currently the company is beginning its commercialization. The company is currently piloting its solution with two large energy companies and the product is sold as SaaS with monthly revenue. Electricity is commoditized and Watty´s service enables the utilities to lock in their clients with additional electricity usage related service. The Watty algorithm is scalable in many markets but has to be adjusted to reflect different hardware and usage patterns. One of the pilot customers is one of the largest energy companies in Germany and the company is also taking first steps to enter US market. Watty has had a new round of financing (€3 million) including CTI SPV and EQT Ventures.

Assessment: We assess Watty´s potential as above average due to scalable business model. The company is at early stage which increases risk, however, commercialization is advancing. Capital need is moderate. The company's value is below average due to the small ownership share (4%).

Positioning



Source: Company, S-Bank (FIM)

Analysis of portfolio companies
Savo-Solar and Lumeron

Savo-Solar

Business: Savo-Solar manufactures the world's most efficient solar thermal collectors and absorbers. The company also designs and produces entire solar energy systems. Compared to the competitors, Savo-Solar's products are able to produce 20% more energy throughout their life cycle. This is a result of their own patented coating technology and the "direct flow" technology and structure of the absorbers, and gives them a competitive edge.

Current stage and future developments: Savo-Solar was listed in OMX First North Sweden. SavoSolar estimates that the company's full-year revenue 2016 will be more than double the revenue in 2015, i.e. approximately EUR 4.5-5.5 million. By beginning of 2017 the production capacity will be doubled. Additionally the efficiency in the manufacturing has improved significantly, resulting in over 70% decrease in working hours per collector in 18 months.

Assessment: Savo-Solar has been listed in OMX First North Sweden and therefore the market value of the company is assumed to reflect the fair value.

Lumeron

Business: Lumeron is a financial services provider for the energy efficiency assets market. It focuses on financing investments into material and energy efficiency, and has been founded to provide help in solving problems typically related to cleantech investments. Even though the company is in itself an independent investment for CTI, the nature of its operations allows it to benefit from synergy with CTI's other portfolio companies.

Stage and future developments: The company is still in its early stages and is not currently actively been developed.

Assessment: It is difficult to analyze Lumeron's risk and potential because the company is still in its early stage of development and the business model is still somewhat undefined. We believe that Lumeron's potential is smaller than the potential of CTI's portfolio companies on average and the value contribution potential is currently assumed to be non-material.

Source: Company, S-Bank (FIM)

Analysis of portfolio companies
The value potential of current investments

Cleantech Invest - Value analysis

Company	Sales 2019e	EBIT 2019e	Value 2019e	Discount rate	Present value MEUR	Current ownership*	Dilution 2019e	Present value for CTI MEUR
Aurelia Turbines	50	5,0	75	70 %	9,0	3,8 %	40 %	0,2
Eagle Filters	15	2,0	30	60 %	4,6	10,0 %	35 %	0,3
Enersize	30	9,0	135	50 %	26,7	42,7 %	30 %	8,0
Metgen	10	3,0	60	55 %	10,4	2,7 %	45 %	0,2
Netcycler (Swap)	190	19,0	570	40 %	148,4	6,6 %	30 %	6,9
Nocart	160	24,0	360	40 %	93,7	21,5 %	20 %	16,1
Nuuka Solutions	25	5,0	75	50 %	14,8	35,5 %	30 %	3,7
One1	15	1,5	19	45 %	4,2	12,9 %	30 %	0,4
Oricane	15	7,5	113	80 %	10,7	21,2 %	30 %	1,6
PlugSurfing	30	6,0	120	70 %	14,4	2,5 %	30 %	0,3
ResQ Club	7	3,0	75	70 %	9,0	8,7 %	45 %	0,4
Sansox	10	1,5	23	65 %	3,0	9,2 %	35 %	0,2
Savo-Solar	-	-	-	-	8,9	2,4 %	-	0,2
Sofi Filtration	35	6,0	90	50 %	17,8	23,1 %	30 %	2,9
Watty	15	7,0	175	70 %	21,0	4,0 %	40 %	0,5
Total				57 %	375,5		33 %	41,7
CTI holding company discount								10 %
CTI value excluding liquid assets (MEUR)								37,5
Estimated liquid assets								0,8
CTI value (MEUR)								38,3
Value per share (diluted)								1,50

Sensitivity analysis

MEUR	Dilution +/-	Discount rate +/- -10 %	-5 %	0 %	5 %	10 %
	-10 %	2,25	1,95	1,70	1,49	1,31
	-5 %	2,11	1,83	1,60	1,40	1,24
	0 %	1,98	1,72	1,50	1,32	1,16
	5 %	1,85	1,60	1,40	1,23	1,08
	10 %	1,71	1,49	1,30	1,14	1,01

MEUR	Holding discount	Discount rate +/- -10 %	-5 %	0 %	5 %	10 %
	0 %	2,20	1,91	1,66	1,46	1,29
	5 %	2,09	1,81	1,58	1,39	1,22
	10 %	1,98	1,72	1,50	1,32	1,16
	15 %	1,87	1,63	1,42	1,24	1,10
	20 %	1,76	1,53	1,34	1,17	1,03

* NB! Current ownership includes possible indirect ownership through Clean Future Fund Ky (calculated with a 36,85% ownership) and possible conversions resulting from convertible bonds.

Value analysis

CTI's value analysis is based on the value analyses of all of its current portfolio companies.

We have analyzed the business prospects of the portfolio companies in the medium term. Year 2019 has been used for the forecast. The company's value in 2019 is based on the approximation of the company's exit-value, or selling price if the financial performance of the company is materialized as expected.

We have assessed the additional amounts of capital needed for the growth of each portfolio company with the dilution effect. We have predicted these values, and they show the rate at which CTI's current ownership of the companies will dilute in the absence of additional investments by CTI. We base our predictions of the dilution effect on our assumptions of each company's capital needed to reach the targets of 2019.

CTI's investment portfolio consists of early stage companies, which means they carry significant risk in their business. For this reason we have in our calculations used a discount rate normally applied in the case of early-stage companies. The rate is much higher than the regular rate for a listed company. The rate is determined by our view on the company's phase of development and the risks associated with the business model. Listed companies (Savo-Solar) is valued using the market price.

We deduct a so-called holding company discount from the value of the portfolio. This value is derived from estimates of a typical holding company discount as compared to the value of the portfolio. The discount is based on (for example) the cost burden carried by the holding company.

The most noteworthy risk factors of this value analysis are: (1) the significant business risk inherent to the early stages of the portfolio companies, (2) the forecasting of the financial development of the portfolio companies, (3) dependency on key people.

FIM has signed a contract with the company on the preparation of the analysis, and based on this FIM has been paid a fee by the company. FIM does not pronounce an investment recommendation or a target price for the shares of Cleantech Invest.

Source: Company, S-Bank (FIM)

Disclaimer

This report has been made by S-Bank Ltd (S-Bank). The information in this report is based on publicly available data and information from various sources deemed reliable, but has not been independently verified by S-Bank and/or its affiliate(s), (herein referred collectively to as S-Bank), which therefore does not guarantee that the information is comprehensive and accurate.

All views expressed herein are those of the author(s) at the time of writing and may change without notice. S-Bank holds no obligation to update, modify or amend this publication or to otherwise notify a reader or recipient of this publication in the event that any matter, opinion, projection, forecast or estimate contained herein changes or subsequently becomes inaccurate.

The research material produced by S-Bank is informative in nature, and should not be interpreted as a recommendation to take, or not to take, any particular investment action. This research does not represent an offer or an invitation to buy, sell or subscribe for shares in the company(-ies) under analysis.

This report does not take into regard the specific investment objectives, financial situation or the knowledge or experience of any specific person who may receive this report. Before making an investment decision, recipients are urged to seek expert advice and get well acquainted with the investment market and different investment alternatives. Any loss arising from the use of the information or opinions expressed in this report shall be the sole and exclusive responsibility of the investor. S-Bank accepts no liability for any possible losses or other consequences arising from decisions based on information or opinions expressed in this report or on information acquired from the S-Bank websites.

There are always financial risks related to investment activities, such as the risk of no yield or the risk of losing the capital invested. Past performance does not indicate nor guarantee future performance of an investment. Some investments discussed by S-Bank have high volatility and may therefore experience sudden and large changes in value that may cause losses. It should further be noted that international investing includes risks related to political and economic uncertainties as well as currency risk.

S-Bank is organized with procedures to prevent and avoid any conflict of interest. This includes inter alia routines regarding the secure handling of insider information. In addition Chinese Wall procedures are in place between the research analysts and employees involved in securities trading for the account of S-Bank or clients to ensure that price sensitive information is handled according to applicable laws and regulations.

S-Bank acts as a market maker or liquidity provider on following companies: Apetit, Cleantech Invest, Etteplan, Honkarakenne, Kotipizza, Innofactor, Martela, Privanet, Siili Solutions, Soprano ja Trainers' House.

Analysis has been prepared by S-Bank analysts Aaron Kaartinen and Kim Gorschelnik. Cleantech Invest Oyj management has been presented the document prior to publishing. S-Bank and analysts who have been involved in the preparation of the research owns shares of company.

S-Bank has made an agreement with the company this study concerns according to which it receives compensation for the research service provided. S-Bank does not provide any investment recommendation for the share.

The research reports and other information received from S-Bank are meant for private use only. The materials may not be copied, quoted or distributed, in part or in whole, without written permission from FIM.

The author of this report may be compensated with a bonus based on his/her personal performance and the overall financial performance of S-Bank.

This report is a brief summary and does not purport to contain all available information on the subjects covered.

Regulators:

S-Bank: The Financial Supervisory Authority of Finland (www.finanssivalvonta.fi)

UNITED STATES

This report or copies of it must not be distributed in the United States or to recipients who are citizens of the United States against restrictions stated in the United States legislation. Distributing the report in the United States might be seen as a breach of these laws.

CANADA

The information provided in this publication is not intended to be distributed or circulated in any manner in Canada and therefore should not be construed as any kind of financial recommendation or advice provided within the meaning of Canadian securities laws.

OTHER COUNTRIES

Laws and regulations of other countries may also restrict the distribution of this report.

For further information relating to research recommendations and conflict of interest management see: www.s-pankki.fi and www.fim.com.

Contact Information

FIM

Equities

Hans Segercrantz, 09 4390 1422

Richard Johansson, 09 6134 6202

Kari Lappalainen, 09 4390 1425

Sami Listola, 09 6134 6234

Jussi Matinlompolo, 09 6134 6428

Antti Pajukka, 09 6134 6321

Thomas Pirker, 09 6134 6222

Research

Kim Gorschelnik, 09 6134 6422

Mika Metsälä, 09 6134 6304

Aaron Kaartinen, 09 6134 6430

FIM Direct, Order routing

Janne Virtanen, 09 6134 6362

Janne Siik, 09 6134 6206

Anna Zayas, 09 4390 1492

Clearing, Settlement and Custody Services

Heli Sirkiä, 09 6134 6335