



SCATEC STRATEGY REPORT

Group 3.1

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Declaration: In the preparation of this report, all were involved together in different parts.

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I. Introduction

The global energy industry is experiencing a shock of unprecedented breadth and complexity. First, under the impact of global warming, governments have contributed to transforming the global energy mix through policy support to meet net-zero commitments since the signing of the Paris Agreement in 2015. But since the outbreak of COVID-19, the epidemic has put pressure on various global supply chains, including energy, and this market pressure has transformed into full-blown energy turmoil under the impact of the first global energy crisis triggered by the Russian invasion of Ukraine.

The global energy landscape is undergoing a major transformation. This can be seen in the growth in the amount of investment in renewable energy, which in 2022 will total about \$495 billion in new investment in renewable energy worldwide, a 17% increase over the previous year. [1] And among all renewables, Solar energy is one of the most promising renewable energy sources. In the NZE Scenario, its share of generation will increase from 15% in 2021 to over 30% in 2030 and nearly 45% in 2050. [2]

Scatec is a leading Norwegian renewable energy company that operates globally, specializing in the development, construction, and operation of solar, wind, and hydropower plants. As the world continues to transition towards cleaner and more sustainable energy sources, Scatec is well-positioned to capitalize on this shift and play a key role in shaping the future of the energy sector.

In this report, we aim to provide an assessment of the competitive landscape and market trends in the solar energy industry, as well as a comprehensive analysis of Scatec's business model and growth strategy.

It should be noted that this report focuses primarily on Scatec's operations in the solar energy sector, with limited coverage of its wind and hydro power plant businesses. The report is based on a range of secondary sources, including:

1. Review of publicly available information, including Scatec's financial reports, investor presentations, and press releases, as well as industry reports and research papers.
2. Use of analytical tools such as the Porter Five Forces model to assess the competitive landscape of the renewable energy industry.

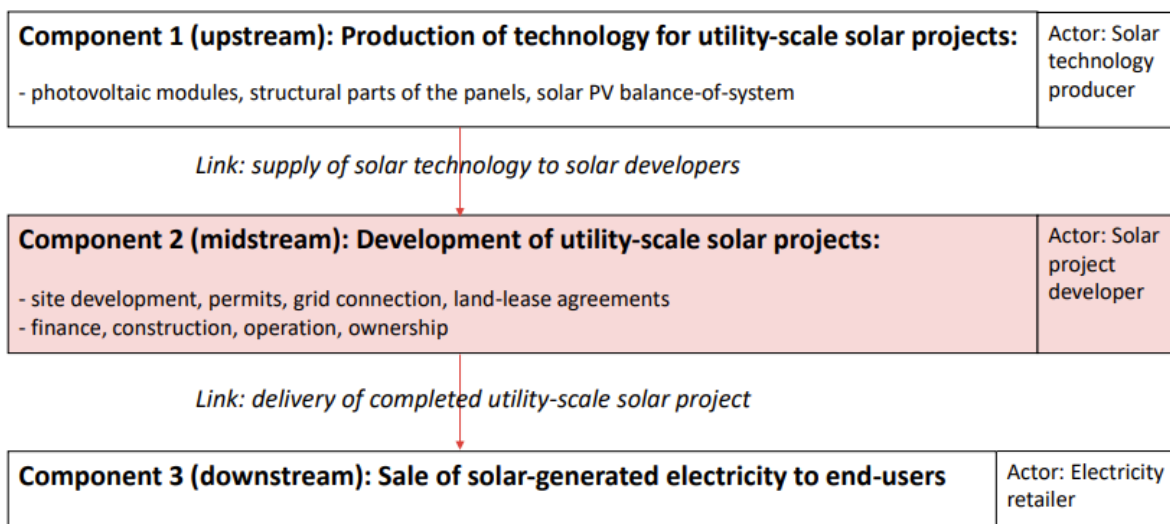
The report proceeds as follows: In Section II we conduct an external and internal analysis of Scatec, examining the solar energy value chain, analyzing the competitive environment, and assessing Scatec's internal resources and capabilities. In Section III, we evaluate Scatec's business and corporate strategies, including its strategic position in the market, expansion plans, partnerships, and investment strategies. Section IV assesses the competitive landscape and market trends in the renewable energy sector and how these could impact Scatec's growth prospects. Finally, in Section V, we summarize our key findings and provide recommendations for Scatec's future strategy and direction.

II. External and Internal Analysis

A. External Analysis

1. Solar energy value chain

According to the OECD's report in 2015 on clean energy investment, the industry was divided into three segments: Upstream (Production & refinement of raw materials for Solar PV productions), Midstream (Solar PV Manufacturing), Downstream (Power generation – including Project development & System integration, installation, maintenance).



2. Changes over Time: Industry dynamics

Industry life cycle

Depending on the country, renewable energy is expected to be the fastest-growing source of electricity generation over the coming decade, with renewable sources accounting for more than 80% of the increase in global electricity generation by 2030, according to the International Energy Agency (IEA). [3] This growth is expected to be particularly strong in developing

countries, where many are seeking to expand their access to energy while reducing their carbon emissions.

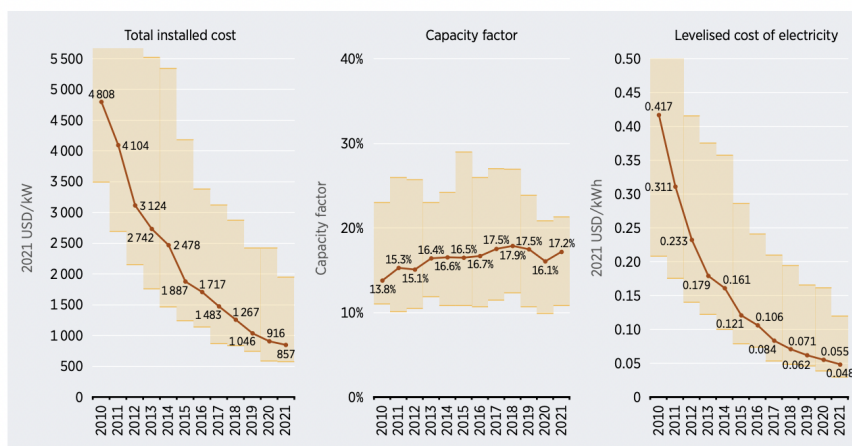
The industry is in a growth phase and has significant potential for continued growth in the coming years.

The customers of this type of industry are considered as early adopters since their demand is driven by recognizing and appreciating the possibilities the new technology can afford them in their professional and personal lives particularly in environmental conservation.

Cost evolution

The production costs of the solar energy industry have declined significantly over the past decade. According to a report by the International Renewable Energy Agency (IRENA), The global weighted average levelized cost of electricity (LCOE) of utility-scale photovoltaic (PV) plants declined by 88% between 2010 and 2021, from USD 0.417/kilowatt hour (kWh) to USD 0.048/kWh. In 2021, the year-on-year reduction was 13%. [4]

Figure 3.1 Global weighted average total installed costs, capacity factors and LCOE for PV, 2010-2021



Source: IRENA Renewable Cost Database.

The report also shows that the cost reductions have been driven by a combination of factors,

including economies of scale, technological advancements, and improvements in manufacturing processes. For example, the cost of solar PV modules has declined by over 90% since 2009, while the cost of balance-of-system components, such as inverters and mounting systems, has also declined.

Types of innovation

Over the years, the industry has seen incremental improvements in the efficiency, durability, and cost effectiveness of solar panels.

In addition to incremental innovations, the solar industry has also benefited from radical innovations in recent years. For example, new forms of solar cells and new materials, such as perovskite solar cells, have the power to significantly increase the efficiency of solar panels.

Advances have also been made in energy storage technology, which is essential for extending the use of solar energy beyond the hours of the day.

Overall, the solar energy industry has seen both incremental and radical innovations that have contributed to its growth and success over the years.

3. Porter's Five Forces Model

Threat of entry

The threat of entry is moderate to high. While the high cost of entry and competition from established companies may pose challenges for new entrants, the decreasing cost of solar panels and supportive government policies may make it more attractive for new players to enter the market.

Cost of Entry

One of the biggest barriers to entry for the solar PV industry is the high cost of setting up manufacturing and installation facilities. Established companies already have economies of scale and can produce solar panels at a lower cost than new entrants. However, the cost of solar panels has been decreasing in recent years, which may make it more attractive for new entrants to enter the market.

Government Regulations

Government policies and regulations can have a significant impact on the solar PV industry. In some markets, governments provide subsidies and tax incentives to promote the use of solar energy. Established companies may have an advantage in navigating these regulations, while new entrants may face additional costs and administrative burdens.

Power of suppliers

Because raw materials and components are required for renewable energy production and there are many suppliers in the market who compete to lower the cost. Also, for each project, many companies such as Scatec propose a tender study. So, to win the project, companies compete to offer the best products. The bargaining power of suppliers is relatively low due to many suppliers.

Power of buyers

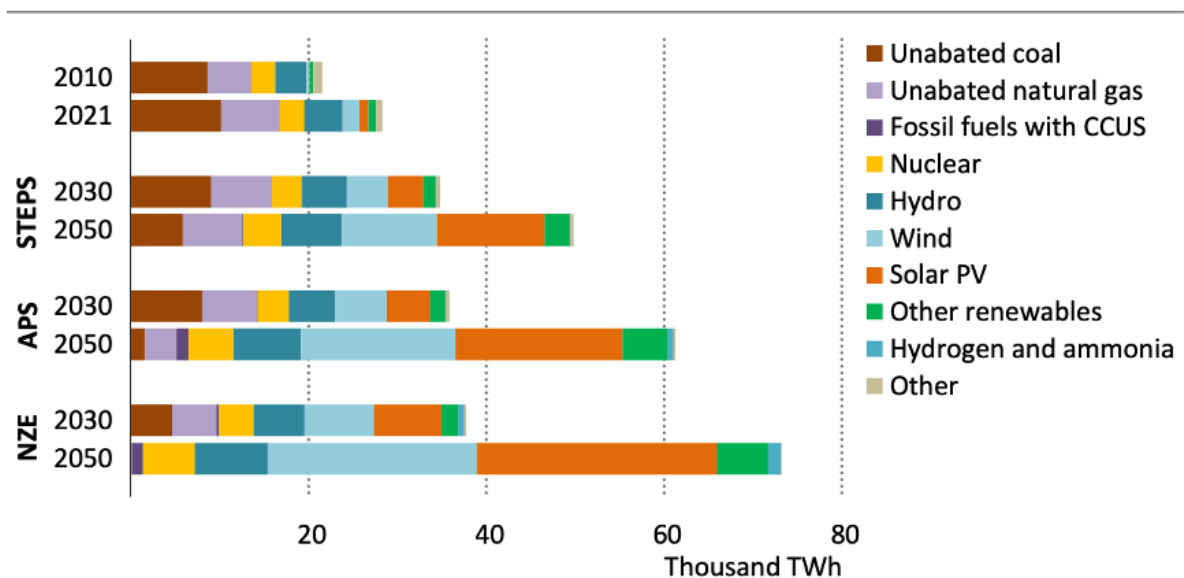
Because customers or buyers of Scatec's products and services are utilities, governments, and other large-scale customers that need reliable and sustainable sources of electricity, Scatec must

constantly renew its client portfolio to meet its growth phase and compete with increasing competition.

Threat of substitutes

Due to increasing demand and interest for renewable energy, the threat of substitutes is low for now.

Figure 6.7 ▷ **Global electricity generation by source and scenario, 2010-2050**



IEA. CC BY 4.0.

Electricity generation from unabated fossil fuels peak by 2030, as low-emissions sources ramp up and renewables dominate electricity supply in all scenarios by 2050

Rivalry among existing firms

Since the competitive rivalry in the renewable energy industry is intense, as there are many companies competing for market share, and because the market of the solar energy industry is growing, Scatec must constantly in its growth phase, gain new market shares and even new markets to outperform its competitors.

B. Internal Analysis

In this section, we will demonstrate how the shift from an external to an internal analysis of a company can expose why and how internal differences in the company are the source of competitive advantage.

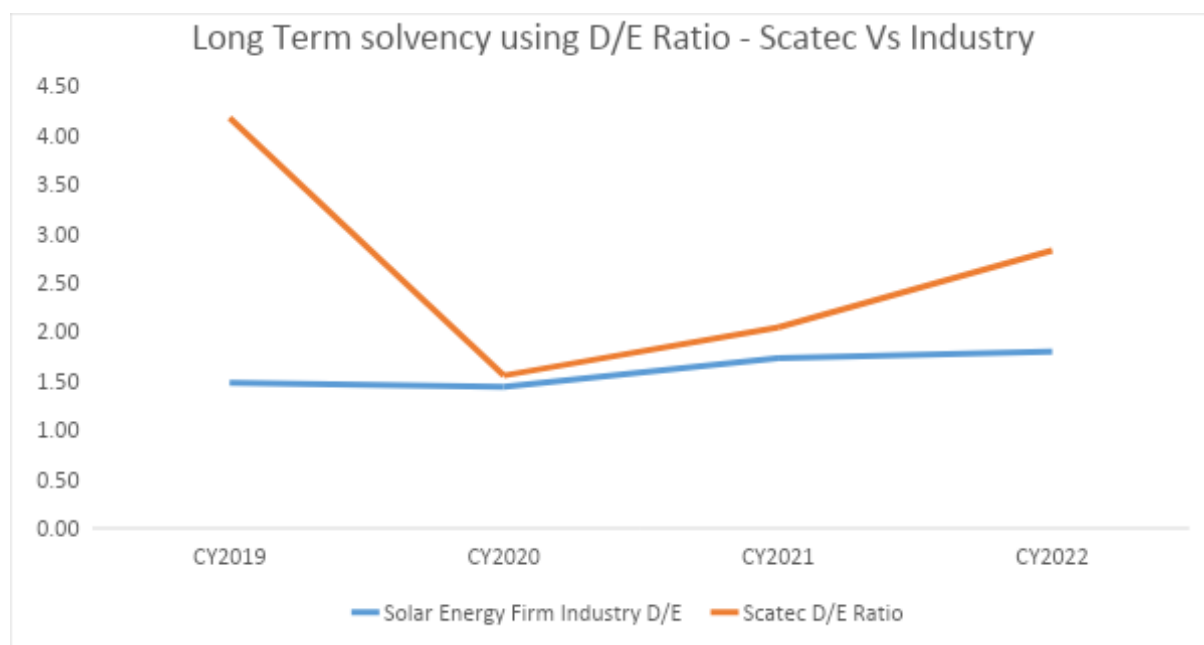
In a first step, we will identify resources and capabilities and in a second step with the VRIO framework that will identify certain types of resources as key to superior firm performance.

1. Tangible assets

Financial

Scatec's ability to raise capital quickly, to expand, and to invest in, develop and build new power plants in emerging markets, all give them good operating cash flow. However, through Debt-to-Equity Ratio analysis, Scatec has a high ratio. A high D/E ratio suggests that the company is sourcing more of its business operations by borrowing money, which may subject the company to potential risks if debt levels are too high.

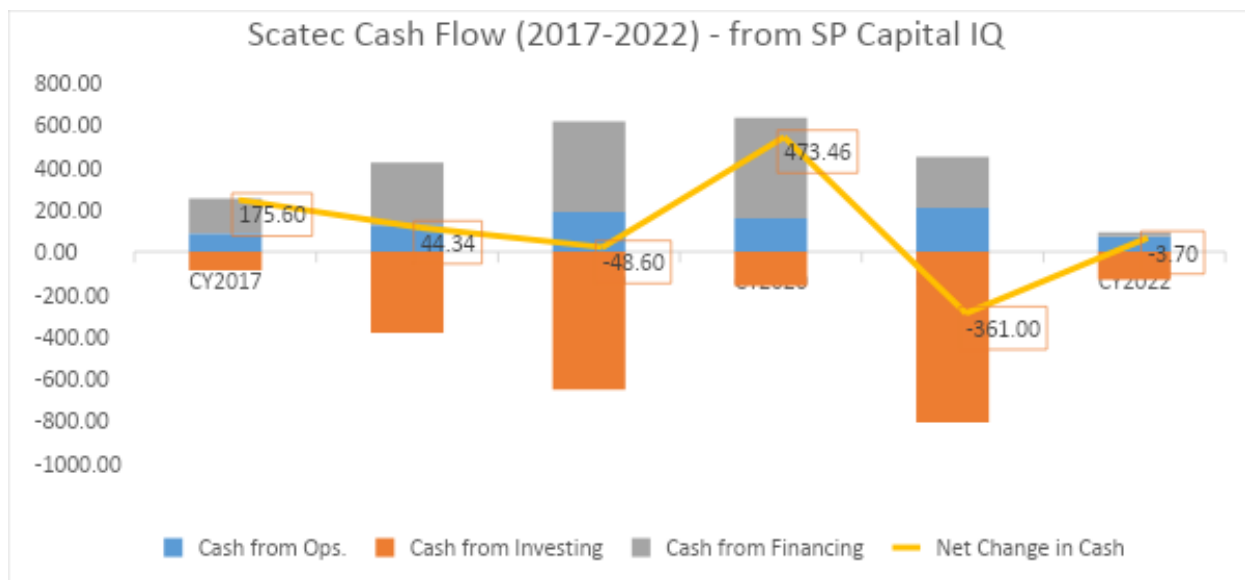
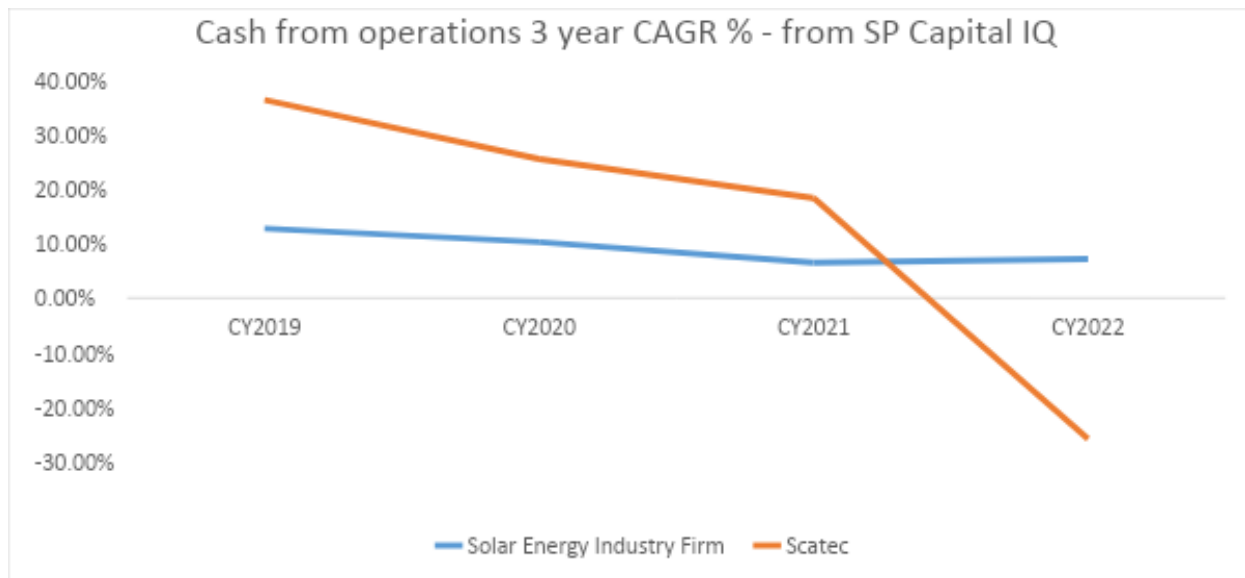
[Debt/Equity Ratio \(from S&P Capital IQ\)](#)



Credit health panel (from SP Capital IQ)

Details					
Template:	Capital IQ Default Comps				
Currency:	Euro				
As-Of Date:	Apr-12-2023				
1 Top2 Above Average3 Below Average4 Bottom Score Change					
Company Comp Set					
Company Name	Overall	Operational	Solvency	Liquidity	LTM Period Ending
Equinor ASA (OB:EQNR)	1	1	1	2	Dec-31-2022
Enfit Green AS (TLSE:EGR1T)	1	3	1	2	Dec-31-2022
Alerion Clean Power S.p.A. (BIT:ARN)	2	1	2	1	Dec-31-2022
Mega First Corporation Berhad (KLSE:MFCB)	2	3	2	2	Dec-31-2022
Aker Horizons ASA (OB:AKH)	2	4	3	1	Dec-31-2022
ALTEO Energy Services Public Limited Company (BUSE:ALTEO)	3	2	2	4	Dec-31-2022
European Energy A/S	3	2	3	4	Dec-31-2022
Solaria Energía y Medio Ambiente, S.A. (BME:SLR)	3	2	4	3	Dec-31-2022
Neeon S.A. (ENXTPA:NEOEN)	4	4	4	3	Dec-31-2022
Scatec ASA (OB:SCATC)	4	3	4	3	Dec-31-2022

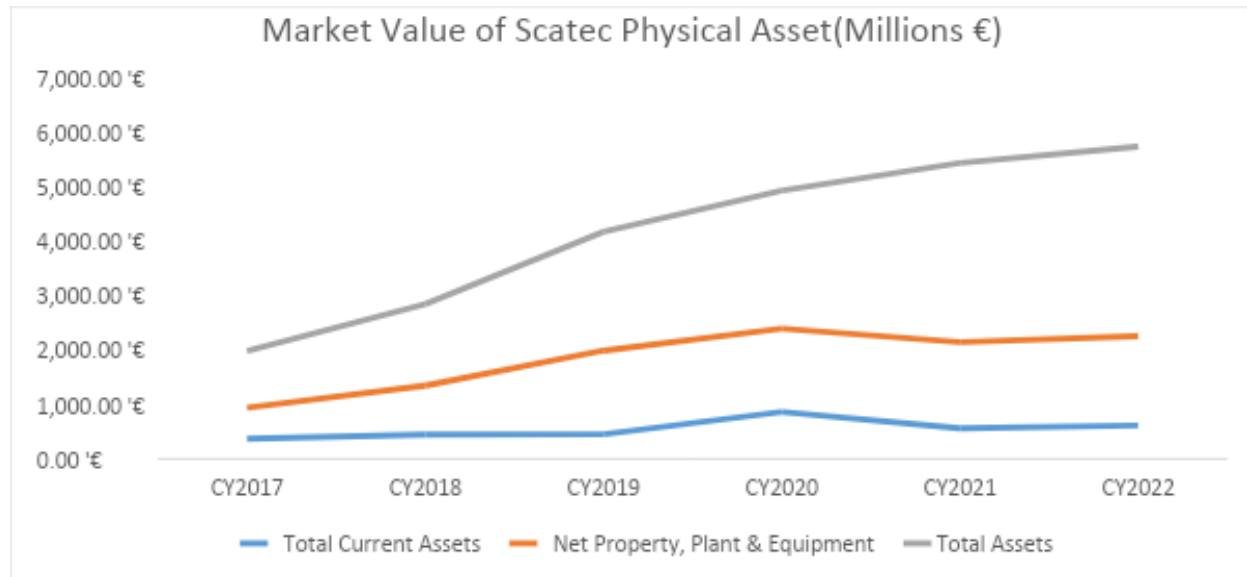
Cash flow



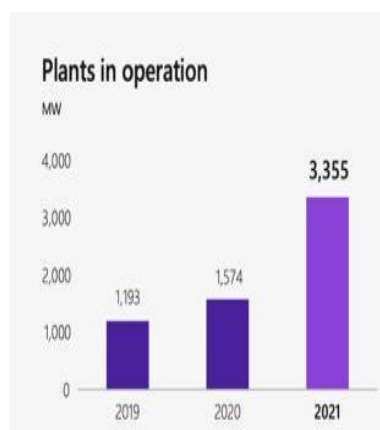
Physical

Scatec is a company with gross 3.3 GW of plants in operation and under construction. They aim to target 15 GW of renewable capacity to be in operation or under construction by the end of 2025, delivered by their 600 passionate employees who share a common vision of ‘Improving our Future’. These factors contribute to Scatec's positive development prospects as they continue

to expand their Scale. They are always developing.



Country	Technology	Capacity MW	Economic Interest	Remaining PPA tenor
Philippines	☼	642	50%	NA ¹⁾
Laos	☼	525	20%	9
South Africa	☼	448	45%	15
Egypt	☼	380	51%	21
Ukraine	☼	336	89%	8
Uganda	☼	255	28%	19
Malaysia	☼	244	100%	17
Brazil	☼	162	44%	15
Argentina	☼	117	50%	18
Honduras	☼	95	51%	13
Jordan	☼	43	62%	13
Mozambique	☼	40	53%	21
Vietnam	☼	39	100%	15
Czech Republic	☼	20	100%	7
Release	☼	20	100%	NA ¹⁾
Rwanda	☼	9	54%	16
Total		3,375	52%	

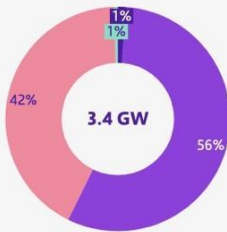




Grow Renewables

Solid operating platform with 4.6 GW of solar, wind, hydro and storage in operation and under construction

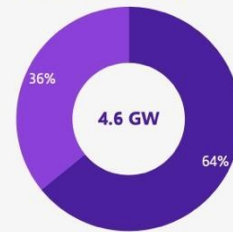
Projects in operation



Projects under construction



Projects in operation & under construction



Wind Solar Hydro Release Storage

Focus markets Other

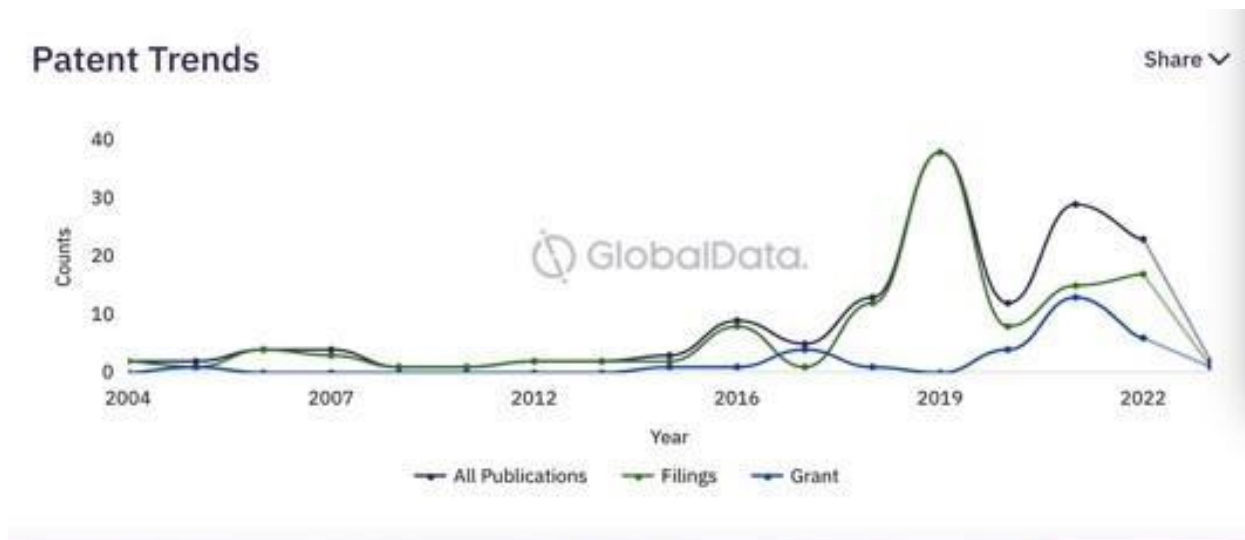
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2. Intangible assets

Technology

Patents

Publication Identifier	Document Type	Title	Classification-CPC	Publication Date
AU2023200079A1	Application	Wire arc accuracy adjustment system	B22F10/00; B22F10/22; B22F10/25; B22F10/31; B22F12/13; B22F12/50; B22F12/90; B23K10/027; B23K15/0086; B23K26/342; B23K9/04; B23K9/044; B23K9/124; B23K9/1336; B23K9/173; B33Y10/00; B33Y40/00; B65H57/26; Y02P10/25	February 09, 2023
AU2017294026B2	Grant	Contact tip assembly for MIG metal welding	B23K9/042; B23K9/044; B23K9/0953; B23K9/122; B23K9/123; B23K9/1735; B23K9/26; B23K9/295; B33Y10/00; B33Y30/00; G05B19/4099	February 02, 2023
US11535927B2	Grant	Multi-chamber deposition equipment for solid free form fabrication	B22F10/00; B22F10/10; B22F10/20; B22F10/30; B22F2201/10; B22F2201/20; C23C14/24; C23C14/50; Y02P10/25	December 27, 2022
WO2022242873A1	Application	MOUNT SYSTEM, PIN SUPPORT SYSTEM AND A METHOD OF DIRECTED ENERGY DEPOSITION FOR PRODUCING A METAL WORKPIECE TO MITIGATE DISTORTION	B23K10/027; B23K15/0086; B23K15/0093; B23K2103/14; B23K26/0006; B23K26/342; B23K31/003; B23K37/0443; B23K37/0461; B23K9/044; B23K9/23; Y02P10/25	November 24, 2022
AU2017294305B2	Grant	Metal wire feeding system and method	B21F23/00; B23K15/0006; B23K2103/14; B23K26/342; B23K9/044; B23K9/133; B23K9/1333; B23K9/1336; B33Y40/00; B65H2701/36; B65H49/32; B65H49/325; B65H51/10; B65H59/387	October 27, 2022



Samples of Scatec ASA Energy Storage Projects data from GlobalData.com

They have lots of investors, technical and scientific employees. For Scatec, companies can improve their technologies constantly to keep their industry competitive advantages. It makes Scatec technology more valuable.

Know-how

Scatec can draw on its 15 years of experience in the industry to gain experience and know-how. The firm experiences increasing patents trend showing they are increasing their R&D and their knowledge gain some value.

Given that Scatec has been in the renewable energy industry for long time now and has a track record of successful project development and implementation, the firm has a relatively steep learning curve compared to newer entrants in the industry.

Steeper experience curve allowing Scatec to lower its per-unit cost by moving down their given learning curve.

Reputation

They have a positive reputation with stakeholders and a strong brand equity, which can be valuable for customer acquisition and retention. Their commitment to sustainable practices and corporate governance may attract like-minded suppliers. Scatec's competitive advantage lies in their targeting of emerging countries. They make their information transparently available to build their reputation.

3. Human resources

According to their annual report, Scatec are strengthening their employer brand to ensure long-term access to talent and offer unique career opportunities by prioritizing people growth and development. During the recruitment process, they target top candidates who possess both a cultural and business understanding of their focus markets. By doing that, they reduce risk and accelerate growth. Scatec is also developing a leadership development framework to facilitate horizontal career moves. This will enable the development of broader skillsets, multi-functional competencies, and a stronger company culture.

Overall, Scatec's intangible assets are critical to its success, and the company must take steps to protect and enhance these assets to maintain its competitiveness in the solar energy industry.

C. Summary

SCATEC SWOT ANALYSIS			
STRENGTH	WEAKNESS	OPPORTUNITIES	THREATS
• Cumulative experience effects • Strong market position in the PV sector • Strong skills in the development and operation in emerging markets • Diversified portfolio • Experienced management team • The regional approach management • Ability in the recruitment process • Return on asset ratio in adequacy with the industry • Increasing revenues • Have many commercial and multilateral finance institutions • Have opportunity to raise any kind of capital • Strong abilities in entering new partnerships • Very good alliance management capabilities • Recognised for their quality • Strong R&D capabilities • Fully integrated business models • Brand loyalty	• Concentration of assets in certain geographic areas • The very high Debt-to-Equity ratio • Interests on the debt damaging the net result • Bad health panel with low solvency and liquidity • Low free cash flow • Higher decreasing EBITDA margin than the industry • Ongoing lower operational performances	• Increasing global demand for renewable energy • Growing interest in storage solutions which could increase the value of Scatec's existing assets and new investment opportunities • Expansion into new geographic (pioneer), in areas with favorable government policies • Potential for new strategic partnerships to increase market share • Potential for new technology capabilities • Increasing government support for clean energy initiatives • Have the support of international entities like the World Bank • Ongoing decreasing cost of productions • Low switching costs • Low threat of substitute	• Competition from renewable energy companies, particularly in developed markets where the market is more mature • Political and regulatory risk associated with investing in emerging markets • Changes in policies or social instability in some regions • Supply chain disruptions • Possible target for an M&A transaction • Fluctuations in commodity prices (inflation), interest rates and exchange rates

As an experienced company, with its blue ocean strategy and strong financial backing, the company is well poised to remain a part of the tremendous growth in solar energy. Nevertheless, the large proportion of operations in emerging markets with a high level of country risk makes the company particularly vulnerable to non-operational factors. On the other hand, these risks are to some extent mitigated by its geographic scope, its diversified workforce, its fully integrated vertical scope, strong partnership arrangements and a solid network in emerging markets. In addition, economic growth, and the goal of greater access to electricity for the world's population represent great opportunities for Scatec Solar in the future. Combined with increased competitiveness and storage technology, these factors provide a basis for further growth.

III. Strategy

A. Corporate strategy

1. Geographic scope

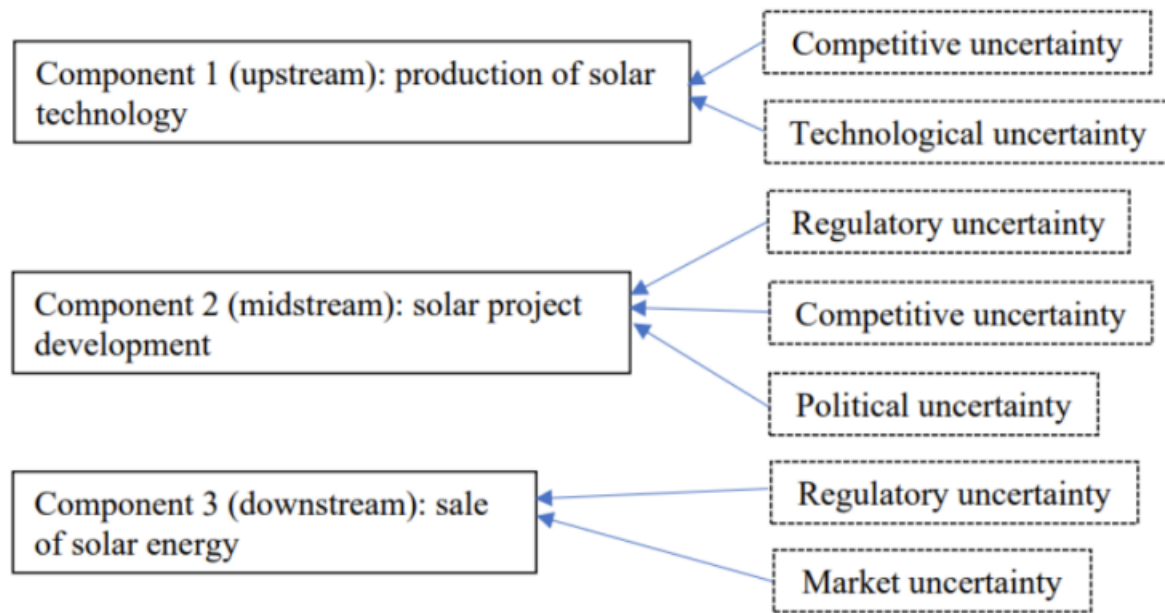
Scatec focuses on selected emerging markets: Today approximately 63 per cent of carbon emissions stem from emerging markets. Because renewable energy is an opportunity for these nations to boost their economic growth, meet growing energy needs, improve living standards, create new jobs, and reduce the dependency on fossil fuels, Scatec is seizing the opportunity to develop its business model in emerging countries.

Their focus is on driving the green energy transition in their focus markets, as renewables are the most cost-effective, rapidly deployable, and secure energy supply to support these growing economies.

I.e., South Africa, Brazil, the Philippines, Hydro-Africa, Egypt, India, and Poland.

2. Vertical integration

According to SKEMA's TD 2 slide on Renewable energy, there are uncertainties a midstream solar company will face. These uncertainties have created transaction costs throughout the vertical scope of the industry supply chain. For the midstream companies, these costs can vary in forms of intermediary costs between stages along the vertical scopes, i.e., Materials & components price changes in different time and regions (Competitive uncertainty), Legal cost to set-up a single purpose vehicle in a foreign country (Regulatory uncertainty), Having to sign PPAs with local energy providers to have rights to distribute the generate power in different countries (Political uncertainty).



a. Figure 1. The industry value and corresponding uncertainties

The value chain of Solar energy is demonstrated as Figure 1 above, where the solar developer companies are focal firms, which means they will take center stage in international business. The focal firms often act as “the initiator of an international business transaction; it conceives, designs, and produces offerings intended for consumption by customers worldwide.” [7]. The main suppliers of solar project developers are the construction firms and finance providers. The local communities have a mutually impacted relationship with the developers. As the plant finishes developing, the solar plant operators shall come in and manage day-to-day activities, as well as handling the commercial terms while in operation. The energy utility companies shall be the client-facing entity, as they will buy the generated power from the solar plants and distribute and commercialize to the end-users. These firms are often state-owned in emerging countries, where Scatec is focusing most of their investments (Appendix 3).

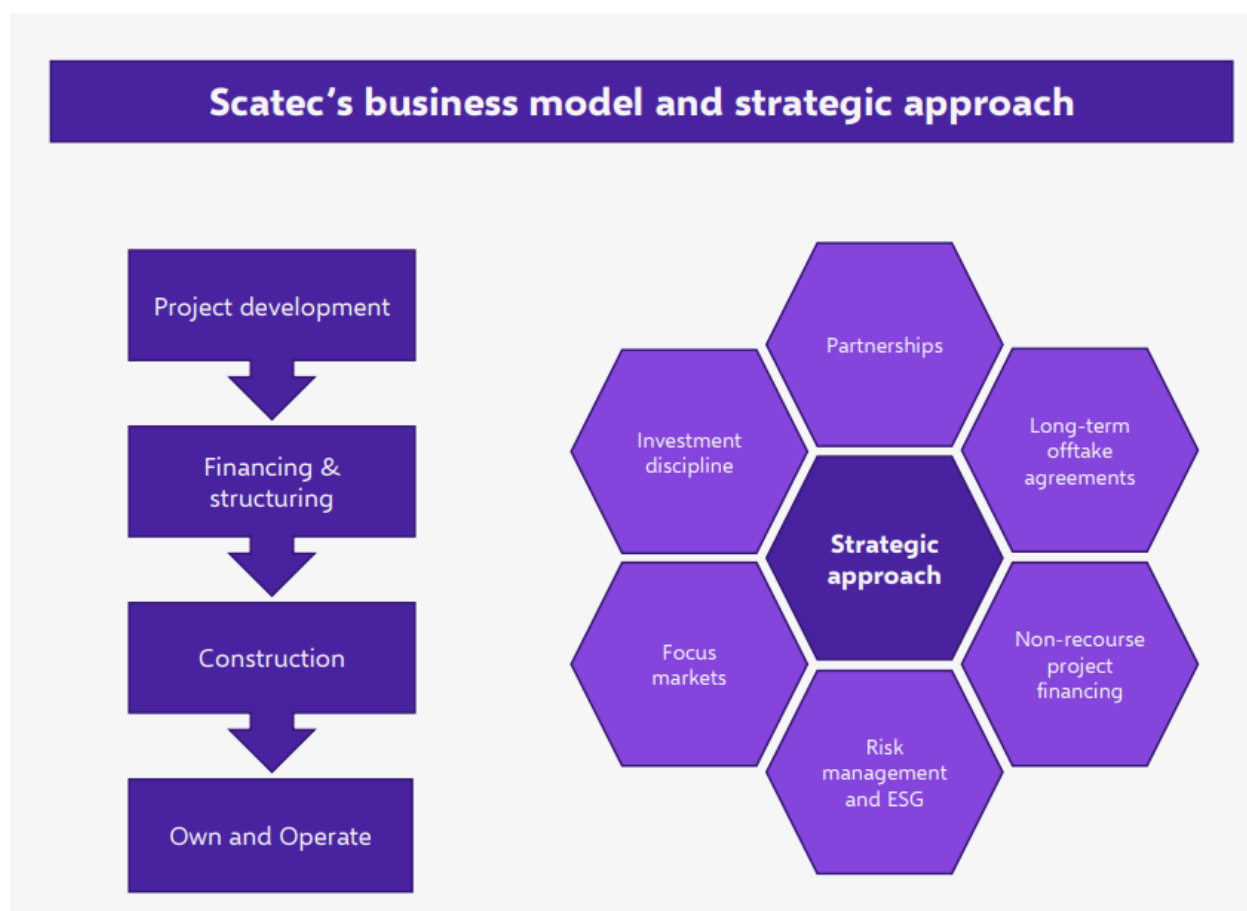


Figure 2. Scatec's business model & value chain (Source: Scatec Investor Presentation Feb 2023) [8]

The uncertainties that Scatec faces result in eleven types of risks, in which the most common risks are: Project Development, Component price, Compliance & Integrity, Political, Cyber and Market price (Appendix 1). These risks occur in Scatec's business activities as the company has been expanding throughout the vertical scope of the industry. These uncertainties are mitigated by a strategic approach to the most important players in their value chain as Scatec implements a fully integrated business model to provide services in Developing and Constructing Solar projects, as well as Providing financial options and Plant owning and operation.

Scatec focuses on establishing and maintaining strategic relationships with four out of six steps in the industry vertical scope, in which they backward integrated with financing & structuring and construction, forward integrated with plant operation, alongside being a project developer. The expansion in vertical scope helps Scatec reduce the afore-mentioned risks by engaging closely with the suppliers and increase buyer power as they integrate more with the upstream, as well as optimize distribution of resources by increasing economies of scope. From this business model and strategic approach, Scatec manages to enhance their core competencies, thus increasing their revenue throughout the years.

Value chain component	Stages involved in Industry Vertical scope	How Scatec does it
Project Development & Construction	Solar project developer	Scatec is responsible for operating/ signing O&M/ EPC contracts with the Component Suppliers and Sub-contractors to purchase the Project assets and signing and/or acting as Asset managers. (Scatec's project structure – Appendix 2). Scatec often works with the financial institutions under strategic, i.e., Scatec Solar and Norfund sign partnership agreement to develop and invest in solar power projects in developing countries [9].
Construction	Construction firms	The single purpose vehicles established for the projects are co-owned by Scatec & the Equity co-investors based on a Shareholders' agreement (Scatec's stake ranging from 39%-100%), who will act as a partner to bear the risks of

		the projects, as well as taking parts in dealing with other stakeholders, i.e., Landowners, Financial institution, State Government. (Investor Presentation 2023) E.g.: Scatec starts construction of solar and battery project in South Africa in July 2022. Scatec holds 51% of the project, while the local partner Black Economic Empowerment owns 49%. "Scatec will be the Engineering, Procurement and Construction (EPC) provider and provide Operation & Maintenance as well as Asset Management services to the power plants." (Scatec news, July 2022) [10]
Structuring & financing	Financing providers	- Equity financing: Invite co-investors to co-invest and take equity stakes. (Scatec Annual report year 2021 & Investor presentation) - Debt financing: Long-term loans & Bond/Notes issues in the countries the projects located, and from international banks and their subsidiary's investors/strategic partners (non-recourse debt). E.g.: Scatec ASA signed a non-recourse loan facility to finance Mendubim project in Brazil in November 2022, provided by IDB Invest. (CapitalIQ & Scatec's Stock release news) [11].

Own & Operations	Solar plant operators	Scatec is responsible for: - Operation: Maximization of performance and availability; Maintenance and repair of the plant under long-term service contracts with pre-agreed commercial terms. (Scatec.com) E.g.: “Scatec and partners sign PPA and start construction activities at the Mendubim solar project in Brazil: ... All three partners have an equal economic interest of 33.3% in the project and will jointly provide Engineering, Procurement and Construction (EPC) services. Scatec will provide Operation & Maintenance as well as Asset Management services to the power plants together with the partners.” [11] - Ownership: Asset management and financial optimization. (Scatec.com) E.g.: Reinvestment from Sales of equity stakes: Sales of equity stakes of money-making projects, e.g.: Selling the stakes from Upington project and use the proceeds to reinvests in new projects (Scatec Investor presentation Feb 2023) [8]. + Issuance of Green bonds: On April 2022, Scatec and its partner "have refinanced the non-recourse project debt for six solar power plants in Egypt, with a total capacity of
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		380 megawatts (MW), through the issuance of a 19-year USD 334.5 million non-recourse Green Project Bond." [13]
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Figure 3. Scatec's vertical scope analysis

3. Product Scope

Scatec implement a Dominant business (between 70% and 95% of revenue comes from a single business): Power Production count for 75.9% of the total revenues. The revenue structure is changing from Development & Construction and Power Production (35% and 60% respectively) to dominantly Power Production (>70%) due to the fast-growing income from previously developed project with invested equity by Scatec.

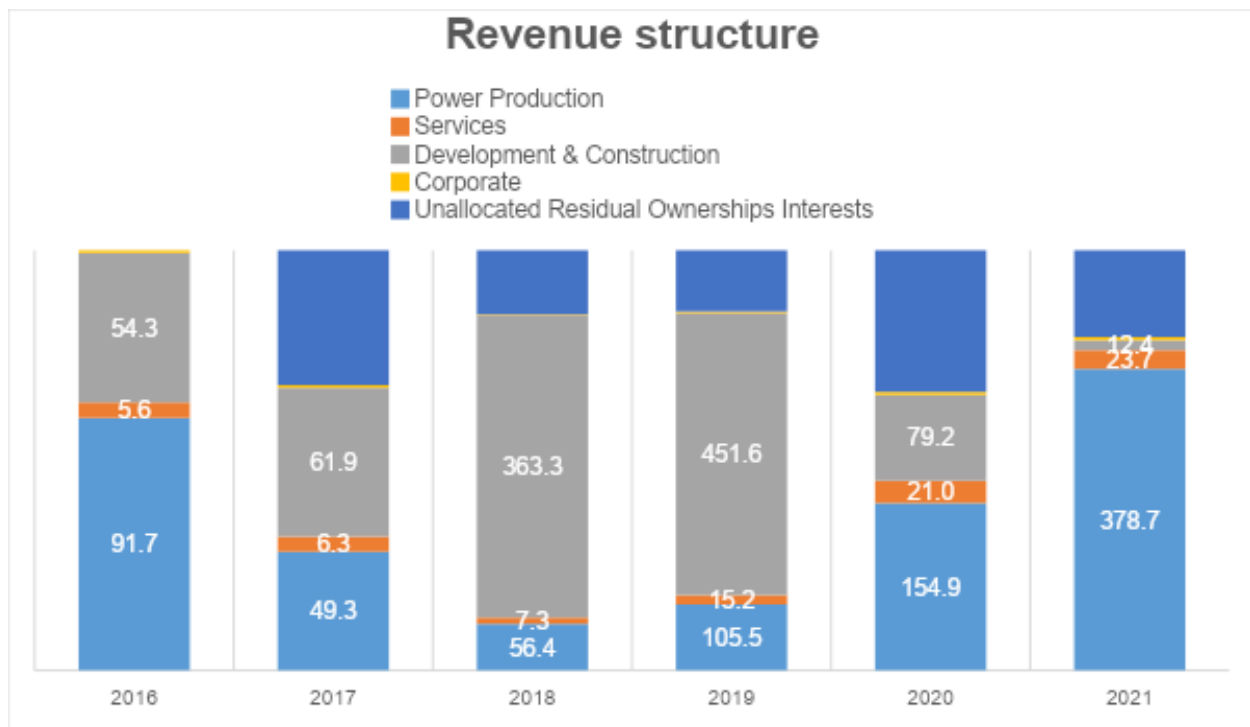


Figure 4. Scatec's revenue structure

Economics of Scope

Scatec ACA is implementing these products and services in terms of economics of scope because they enable the company to benefit from economies of scale, as well as other operational efficiencies. The four segments are interrelated, and their activities are complementary, allowing Scatec ACA to leverage its expertise and resources across multiple areas of the renewable energy value chain.

Power Production

Scatec ACA's power production segment allows the company to generate revenue from the production and sale of renewable energy. By developing a diversified portfolio of solar, wind, and hydro power plants, Scatec ACA can leverage its expertise across multiple technologies and markets. Additionally, by selling its electricity through long-term Power Purchase Agreements or feed-in-tariffs, Scatec ACA can ensure a stable revenue stream over the long term.

Services

The Services segment provides Scatec ACA with an opportunity to leverage its technical and operational expertise to enhance the efficiency and profitability of its power production assets. By providing Operations & Maintenance (O&M) and Asset Management services to its own power production plants, Scatec ACA can ensure optimal performance, reduce downtime, and extend the lifespan of its assets.

Development & Construction

Scatec ACA's Development & Construction segment enables the company to benefit from economies of scope by providing development rights and construction services to its own project entities. By leveraging its expertise in project development and construction, Scatec ACA can reduce costs and improve efficiency across its portfolio of power production plants.

Corporate

The Corporate segment provides Scatec ACA with essential management services, including finance, legal, and human resources. These services are necessary to ensure the efficient operation of the company and support its growth strategy.

Scatec ACA's approach to implementing these products and services reflects its commitment to achieving operational efficiencies and maximizing its return on investment across the renewable energy value chain. By leveraging its expertise and resources across multiple areas, Scatec ACA can achieve economies of scale and reduce costs, ultimately benefiting its shareholders and the environment.

BCG Matrix

Scatec has four different revenue streams, of which one was for internal resources distribution (Corporate), and the other three are external sources of income. The BCG matrix below shows the positioning of each product in Scatec's business model and how they should consider distributing their resources and capabilities in the future to maintain their market position, and even grow their market share.

Products & Services	Segmentation	Characters	Actions to take
Power Production	Star	High earning, Stable Cash Flow	Hold and invest for growth
Services	Cash Cow	Stable earning, Stable Cash Flow	Hold
Development & Construction	Question mark	Growing earning, Negative Cash Flow	Increase market share (as this is the hook for Scatec to gain entrance to Power Production revenue)

Figure 5. Scatec's BCG Matrix

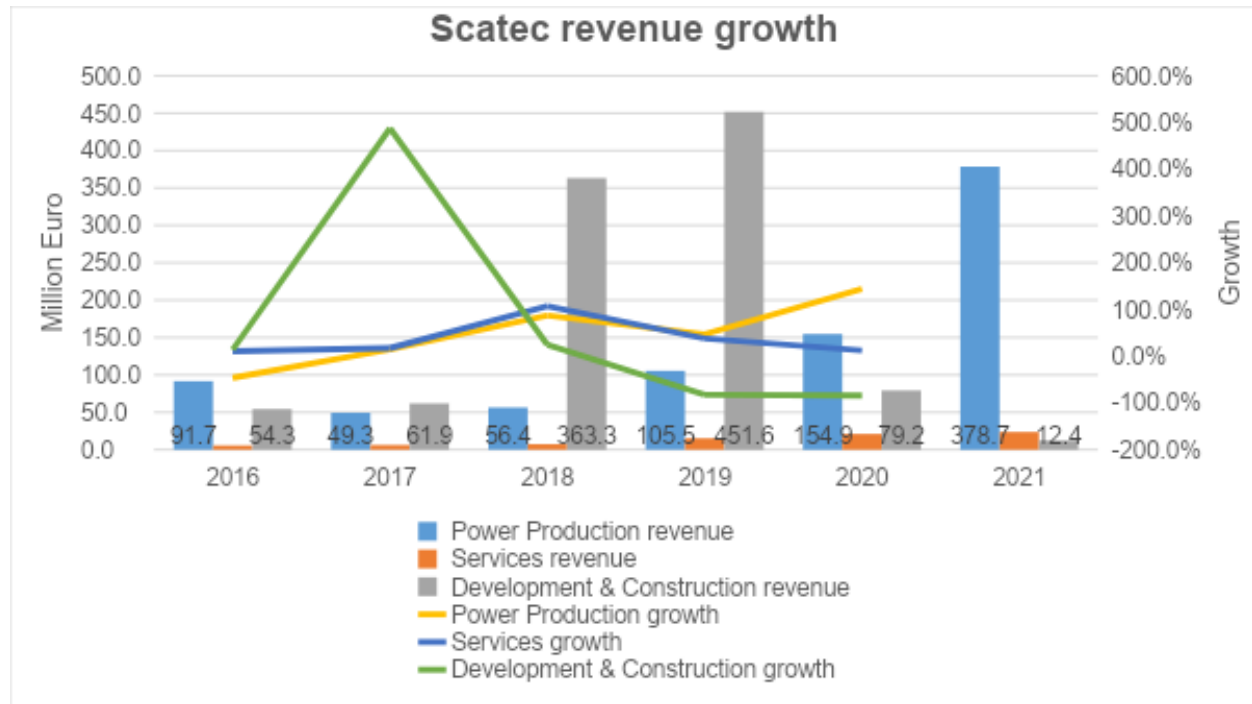


Figure 6. Scatec's consolidated financials

4. Combining Vertical and Product Scope

We believe that partnerships are essential to our success, and, as part of our strategy, we are setting clear expectations and plans for joint initiatives. We work alongside policymakers, financial institutions, suppliers, and others to create value, stimulate growth, and mitigate risk in all endeavors. Our key stakeholders provide valuable feedback and input to our material ESG topics and sustainability work. [15]

Technical uncertainty

Renewable energy technologies are rapidly evolving, and there is a significant amount of technical uncertainty around the optimal configuration and operation of these systems. Scatec ACA's collaborative approach to partnerships allows it to leverage the expertise of a diverse

range of stakeholders to help address these technical uncertainties. For example, Scatec ACA can work with academic institutions, research organizations, and other companies in the renewable energy sector to develop new technologies and solutions that can improve the efficiency and reliability of its power production systems. By working together in this way, Scatec ACA can achieve economies of scale and scope, reducing the costs and risks associated with technical uncertainty.

Regulatory uncertainty

The renewable energy sector is subject to a wide range of regulations and policies, and there is a significant amount of regulatory uncertainty around the future direction of these policies. Scatec ACA's approach to partnerships allows it to work with policymakers and other stakeholders to help shape the regulatory landscape in a way that is favorable to its business. For example, Scatec ACA can engage with government agencies and other stakeholders to advocate for policies that support the development of renewable energy projects and incentivize the use of clean energy sources. By working collaboratively in this way, Scatec ACA can reduce the risks and costs associated with regulatory uncertainty, while also positioning itself as a leader in the transition to a low-carbon economy.

Expansion of the product scope through internationalization

According to the ETP 2023 report, Renewable energy (including Solar) is facing potentially risk levels of concentration in clean energy supply chain globally [16]. Therefore, it is crucial, if not mandatory, for a Renewable energy company like Scatec to diversify their energy offerings globally. As each country would have their own competitive advantage of renewable energy

resources, and because of the emergence of this high growth industry, it would be wise for the company to diversify their investment in different types of energies.

Scatec's biggest portion of portfolio is still in Solar, but they are making the transition into other renewable energies slowly with the focus was on Wind energy, of which projects account for 39% of project pipeline. It is expected soon that the focus for Scatec's operations is in Solar and Wind energy. Besides, Scatec also explores other sources of renewable energy, i.e., Hydrogen that accounts for 17% of the project pipeline. Their nearest M&A with SN Power (A Hydrogen firm with projects based in Asia, South Africa) indicates the strong movement to move into other renewable energy [17].

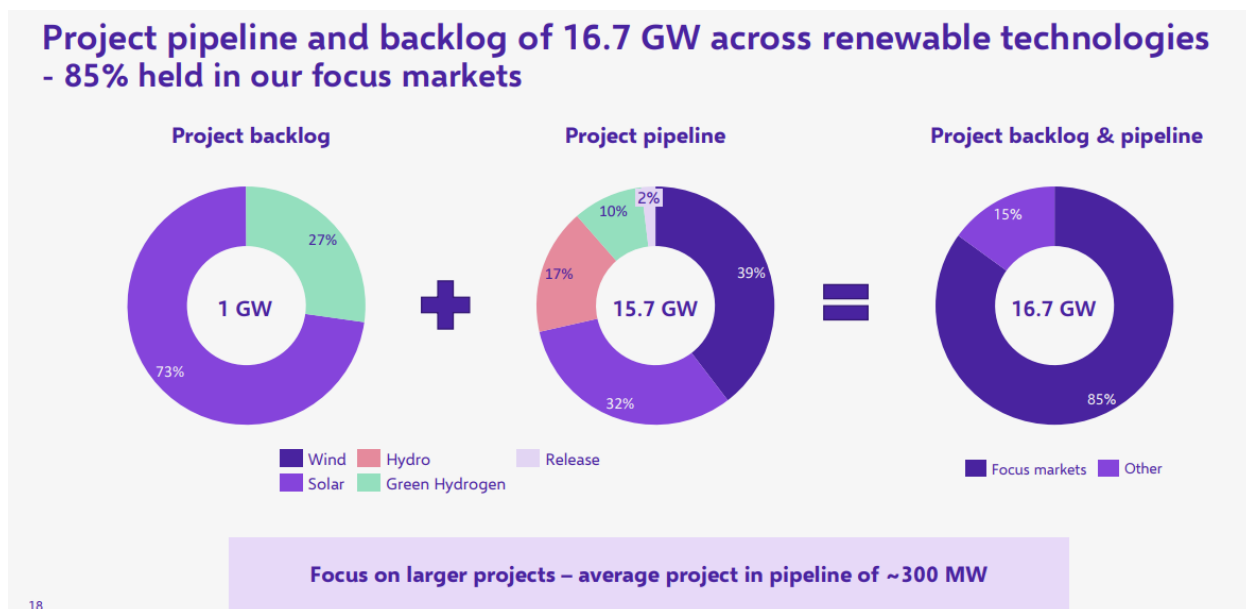
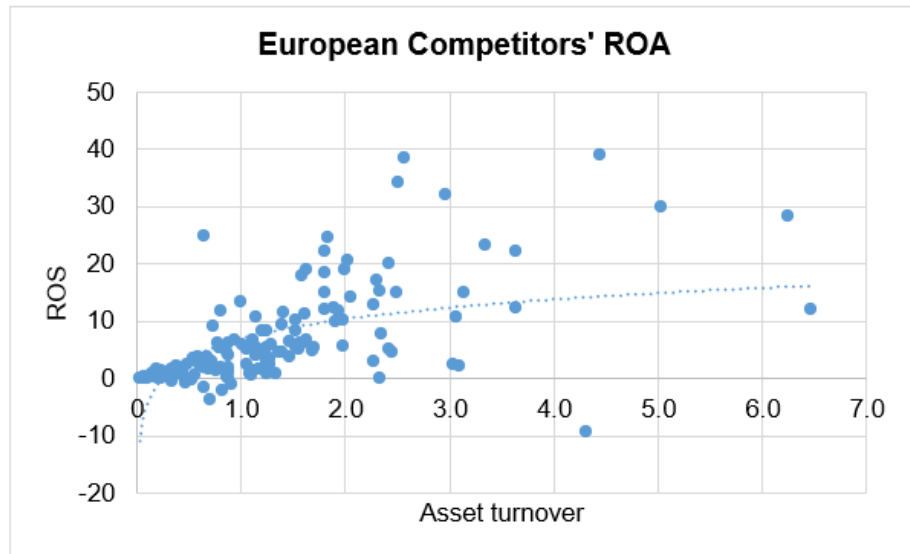


Figure 7. Scatec's project structure (Source: Investor Presentation Feb 2023)

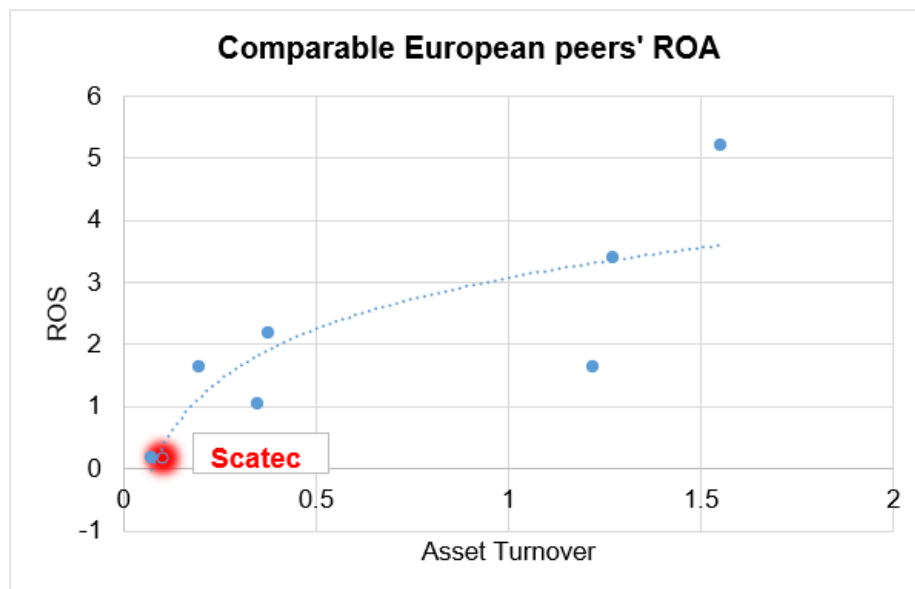
B. Business strategy

1. Quantitative analysis

We assess the companies from the same sectors as Scatec in Europe. The set of data is concentrated around Asset turnover of [0;2] (whole range [0;7]), Return on Sales of [0;25] (whole range [0;40]). Financially, it seems that they have been using Cost-leadership strategy widely in the industry. (Source: CapitalIQ)



Selected firms: Among the comparable firms from the dataset above, Scatec has been one of the worst ones, statistically, in Cost-leadership, as they barely get returns from their business last year and have low efficiency in asset use. However, this can be explained as the company has been doing expansion aggressively for the last year.



2. Qualitative analysis

In their efforts of gaining a better position in this high growth market, they have been trying to differentiate themselves (Appendix 6) by offering End-to-end services in emerging countries with low prices, where they could gain abundant supports from the government. Example:

- Sub-Saharan Africa project – Botswana: Scatec performs the engineering, procurement, and construction (EPC) work on the project and will then operate and maintain the power plant (Factiva, 2022). [18]
- Tunisia projects – Tozeur, Sidi Bouzid, Tataouine: Scatec builds, operates, maintains the projects, and participate as lead investor. The bidding generated power price of Scatec is a record low of Africa - USD 0.0244 (EUR 0.022) per kWh (Factiva, 2019). [19]

Scatec is trying to be an Ambidextrous firm as they already have dynamic capabilities throughout the vertical scope, which are skills accumulated throughout the years doing project development. They are also combining “Exploitation & Exploration activities” to maximize efficiency, minimize costs and at the same time maintain their position in the market by having technological advantage.

The Exploitation activities are shown in “Corporate” revenue, where they leverage experiences & skills from their Project development years to create Standardized process to reduce cost of developing project in different countries, increase efficiencies in working with different suppliers, creating incremental innovation, which results in creating economies of scope for the company. This has enabled the company to quickly expand year by year to a variable of countries. The single purpose vehicle is a localized subsidiary that is opened to deal with local partners (Construction, Financials, Utilities companies). This allows Scatec to have the flexibility in choosing the best local supply partners to work with.

The Exploration activities help Scatec balance with exploration activities including some degree of decentralization and innovation into their Leadership & Organizational context. There are established roles to overlook the development of technology used in Scatec’s business (EVP of Solutions). The headcounts of Engineer in the last year increased by 42% (Figure in Employee distribution and headcount growth by function in Internal analysis).

The company is also expanding globally by acquiring SN Power. This shows an effort of Scatec to search for new sources of energies to enhance their competitive advantage, while keeping up with the growth of the fast-growing industry in Renewable Energies.

All in all, Scatec is trying to create a Blue Ocean strategy by executing a Dual strategy. This helps them transiting smoothly into Advanced Hydrogen energy and expand emerging countries through integrated business model (Annual Report 2022), as the “Power-to-X” is a rising trend in the Hydrogen energy in continuance of the shakeout of Solar Energy. As declared by the latest annual report of the company, this shall be the main strategy until 2027.

IV. Conclusion

The renewable energy industry, notably solar energy, is rapidly expanding. Companies like Scatec can benefit from this trend by utilizing their competitive advantages and executing a clear business and corporate strategy.

Scatec may be interested in expanding into energy storage solutions to diversify its services. As the demand for solar energy grows, so does the need for energy storage technologies to handle solar power's intermittent nature. Scatec can develop additional income streams while also providing clients with a more comprehensive renewable energy solution by adding energy storage products to its range. This approach will set Scatec apart from its competitors and position it as an appealing partner for consumers looking for a comprehensive green energy solution.

Technical advancement and innovation are critical in the solar energy business because they promote growth and reduce costs. Scatec must prioritize innovation to maintain its competitive advantage. The corporation should devote resources to research and development to improve its technology and generate new products that satisfy the evolving requirements of customers.

Scatec, for example, may invest in the development of innovative solar panels with higher efficiency or energy storage devices with longer lifespan. Scatec can maintain its market position and generate long-term growth by staying ahead of the innovation curve.

Since renewable energy projects necessitate considerable capital inputs, debt levels are a major source of worry for enterprises in this industry. While Scatec has maintained strong operating cash flows, its high Debt-to-Equity Ratio suggests possible dangers if its debt levels rise too

much. As a result, the corporation must strive to reduce its debt while maintaining its strong cash flow capability. This plan will safeguard the company's long-term financial stability.

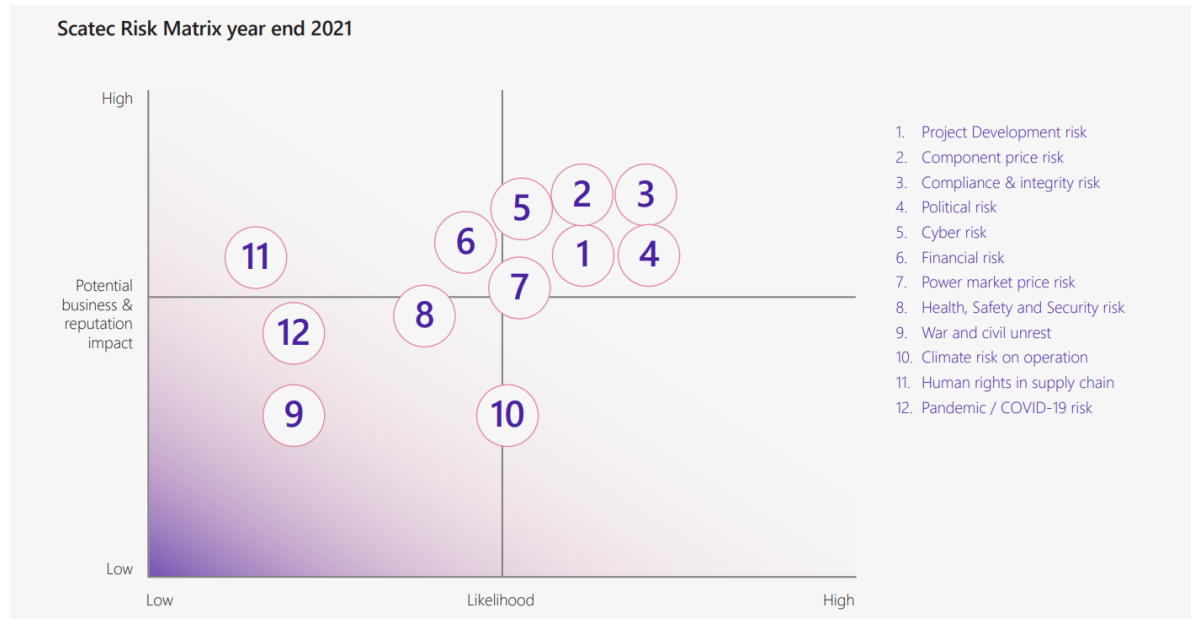
Scatec is now focusing its efforts on a few emerging areas. Yet, the corporation should consider expanding into other sectors where renewable energy represents a growing potential, particularly in industrialized countries where demand for renewable energy solutions is increasing. Scatec will be able to access new income sources and increase its market share because of this development. Scatec should also continue to target emerging areas where renewable energy represents considerable economic development to address increasing energy demands.

Furthermore, Scatec should develop relationships with other companies in the renewable energy field to achieve development and profitability. This might entail partnering with energy storage businesses or other renewable energy companies to provide clients with integrated solutions. Scatec may earn significant income through forming partnerships and combining its long-term competitive advantages with the assets, resources, and competencies of its partners.

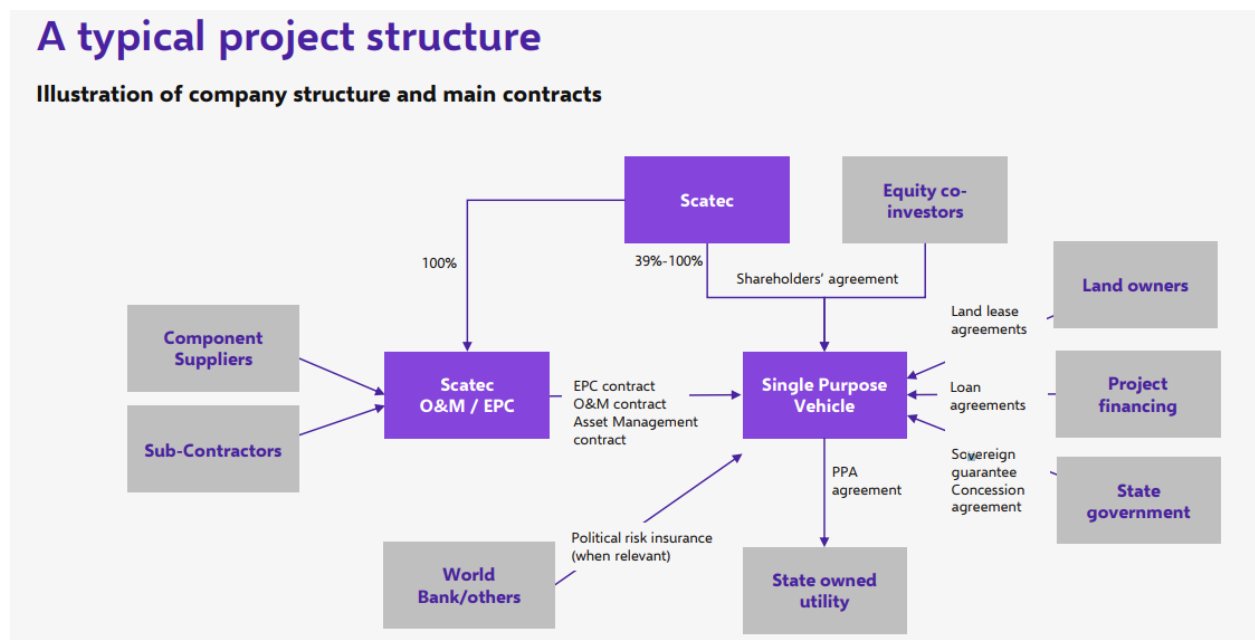
To conclude, Scatec is a firm that is well positioned in the solar sector because of its strong long-term competitive advantages and well-defined business and corporate strategy. Scatec should diversify its product line, focus on innovation, keep a tight watch on its debt levels, enter new markets, and form partnerships with other renewable energy firms to maintain its competitive advantage and drive growth and profitability. Scatec can maintain its market position, generate long-term growth, and produce outstanding returns by implementing these approaches.

V. Appendix

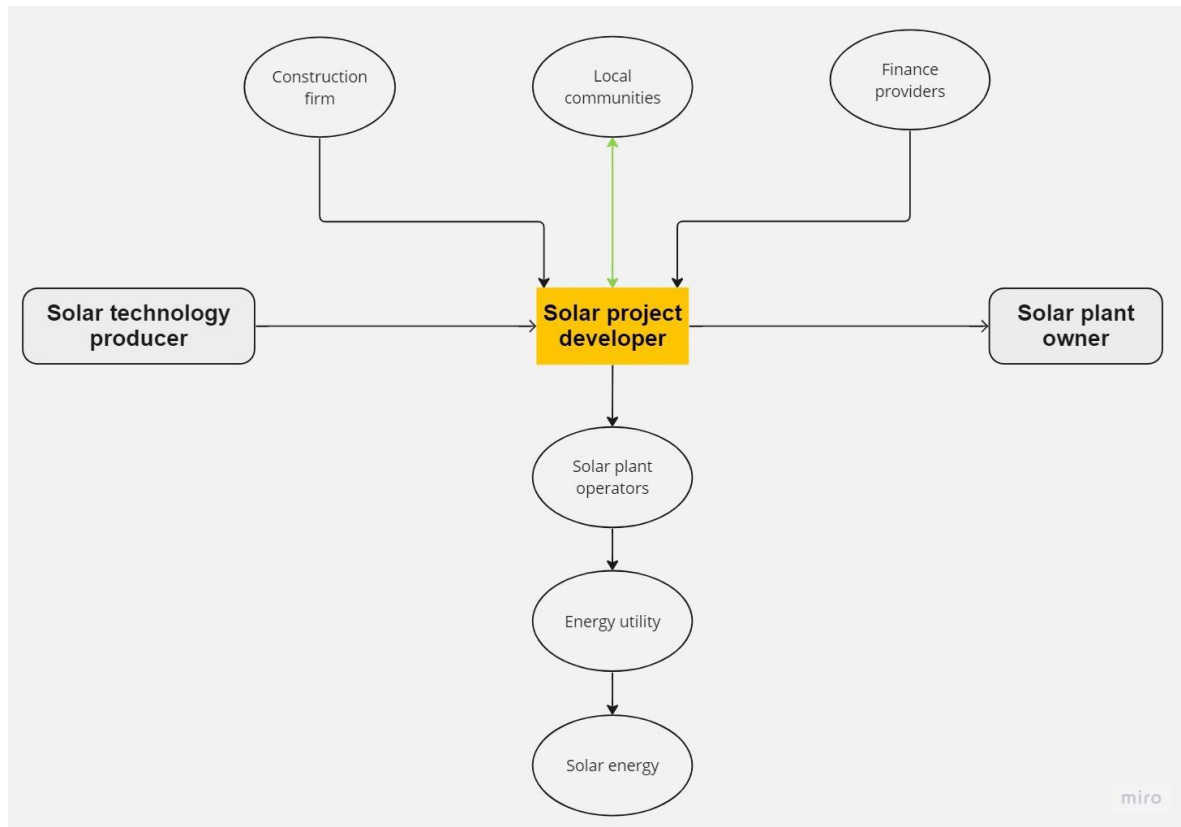
Appendix 1. Scatec's risk matrix FY2021



Appendix 2. Scatec's Project structure (Source: Investor Presentation Feb 2023)

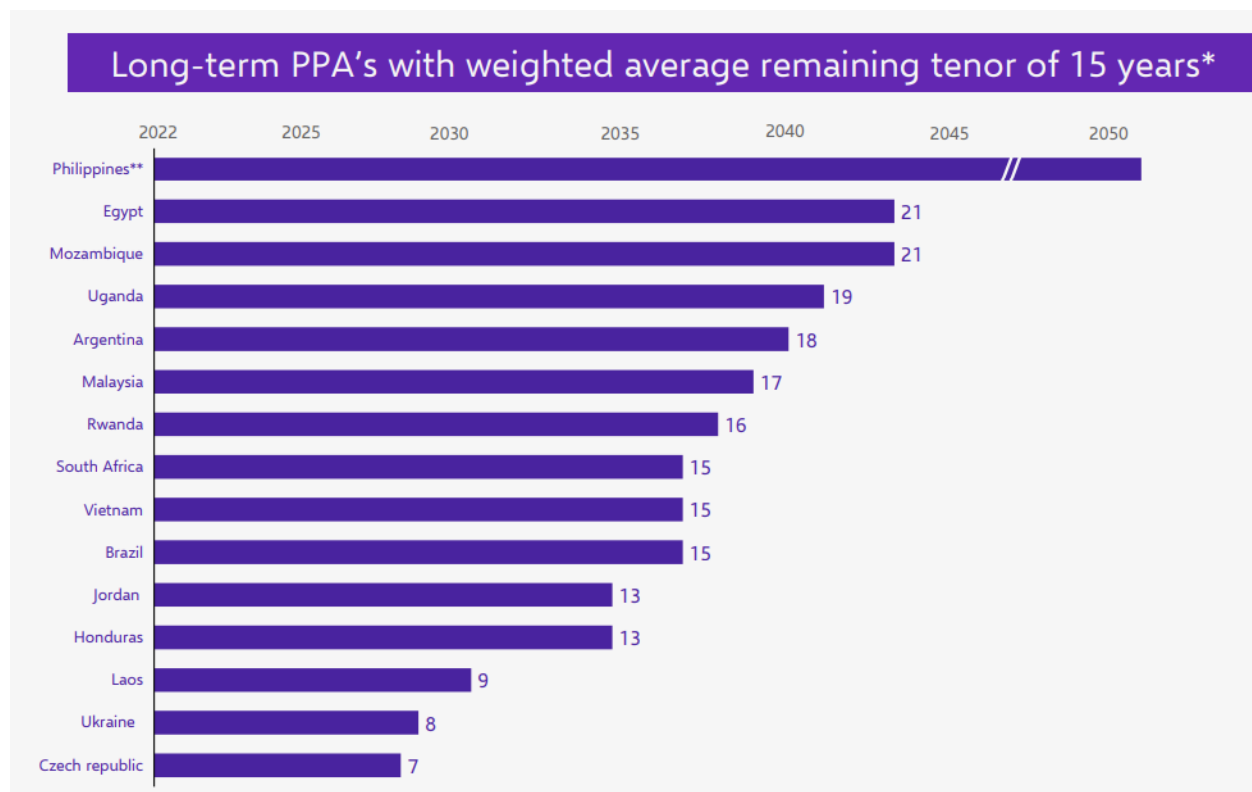


Appendix 3. The industry value chain and economic actors



Appendix 4. Number of PPAs signed by Scatec

PPAs are signed to ensure there would be a buyer before Scatec started developing a project, thus can be considered as the strategic factor for a solar company to gain legitimacy to distribute their solar electricity. Scatec has maintained to sign more than 100 PPAs with weighted average remaining tenor of 15 years, which ensures Scatec's legitimacy in supplying power in those operating countries in terms of legal, and enables them to predictable cash flows, thus reduces the uncertainties from the industry and enhances trusts for investors and financing partners.



APPENDIX 5

	Value	Rarity	Inimitability	Organized	Competitive Advantage?
Scatec keeps constructing their firms to expand their business size.	✗			✗	Sustainable resource advantage
Chain Value	✗	✗	✗	✗	S r ad
Scatec is good at finding financial support.	✗			✗	S r ad
Intellectual Property	✗	✗	✗		Differentiated competitive advantages

Scatec has a relevantly great reputation.	✗				S r ad
Strong employee encouragement creates quality teammates and great retention.	✗			✗	Sustainable competitive advantage
Strong use of database techniques makes it less expensive and faster for us to produce high-quality products for customers.	✗				Temporary competitive advantage

APPENDIX 6

1. Business-level Strategy

Who are the customers?

Utilities: Scatec's power plants are connected to the grid, and they sell their electricity to utilities in the countries where they operate. (E.g.: Electricidade de Moçambique (EDM) in Mozambique and EDP Renovaveis in Brazil)

Corporates: Scatec also sells electricity directly to corporate customers, such as mining companies and manufacturing plants, who require a reliable and affordable source of electricity. (E.g.: Fresnillo in Mexico and Namibia Breweries in Namibia)

Governments: Scatec partners with governments to develop renewable energy projects that help to meet their energy needs and reduce their carbon footprint. (E.g.: government of Ukraine and the government of Egypt.

Communities: Scatec also develops and operates projects that bring power to off-grid communities, helping to improve their standard of living and spur economic development. (E.g.: Rural communities in Mali and Burkina Faso)

What customer's needs, desires will Scatec satisfy?

Energy security: Scatec provides reliable and affordable energy solutions to help customers ensure that their energy needs are met consistently and without interruption.

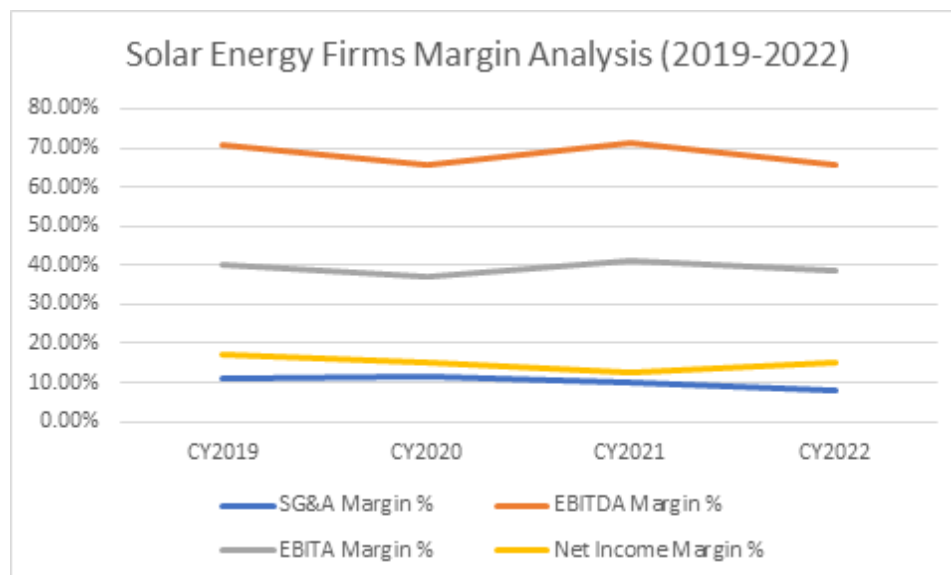
Cost savings: Scatec's renewable energy solutions are often cheaper than traditional fossil fuel-based energy sources, which helps customers save money on their energy bills.

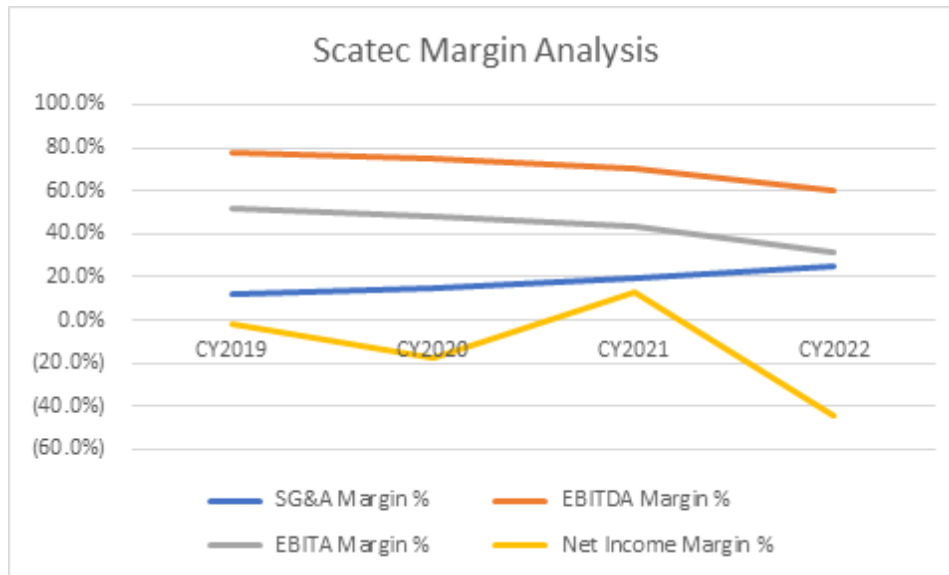
Sustainability: Scatec's renewable energy solutions help customers reduce their carbon footprint and meet their sustainability goals.

Corporate social responsibility: Scatec's community-based projects help customers meet their corporate social responsibility goals by supporting the economic development of local communities and improving their quality of life.

Energy independence: Scatec's off-grid energy solutions help customers achieve energy independence, particularly in remote areas where access to the grid may be limited or non-existent.

2. Strategic Position





Scatec aims to maintain its high growth rate in target markets. When making investments, they target projects that generate long-term profitable returns of 1.2 times the project's cost of equity. Scatec uses its proven integrated business model to generate additional margins to maximize value creation.

In their priority markets, they will focus on larger projects. By taking this more focused approach and injecting capital and resources into these specific markets, Scatec can create more value through scale advantages and higher success rates.

Scatec is a long-term industrial asset owner and has ambitions to manage its existing asset base and deliver strong results through cost and asset base optimization, while remaining at the forefront of sustainability compliance and international best practice.

Going forward, they plan to actively manage their portfolio through consolidation and asset rotation to extract maximum value from their projects.

For example, Release, Scatec's flexible leasing solution for pre-assembled and containerized

solar PV and batteries, will focus on the African market in the short term, prioritizing projects that help build a strong track record and generate increased demand, in the 1-30 MWp range.

In addition, developing staff and promoting a culture that encourages diversity are key to their future. They will develop the skills and leadership capabilities needed to guide the company into the future. Their team has significant experience in implementing new opportunities and managing risks in complex environments, which is seen as their competitive advantage.

They take a holistic approach to Diversity, Equity, Inclusion and Belonging (DEIB) in their practices, policies, and procedures, and in our development programs and initiatives.

Therefore, Scatec have a positive reputation and strong brand equity, often rewarded for their quality of service.



Scatec's position as a frontrunner in ESG

- Reduces risks and strengthens probability of successful completion of projects
- Becoming imperative to qualify for and win new projects
- Brings opportunities for cheaper financing - ESG linked loans
- Submitted net zero climate targets to SBTi

All projects must adhere to the IFC PS and Equator Principles





Rating: A
Top rating in ESG reporting among the 100 largest companies on Oslo Stock Exchange



Rating: Platinum
Top 1% of companies rated



Rating: Low risk
Low risk of material financial impacts from ESG factors



Rating: A
Carbon Disclosure Project Top score

Following these elements, we firmly believe that Scatec is opting for a differentiation strategy and a cost-leadership strategy. (Source: Scatec Annual report 2022)

VI. Reference

- [1]. BloombergNEF. (February 23, 2023). New investment in renewable energy worldwide from 2004 to 2022 (in billion U.S. dollars) [Graph]. In Statista. Retrieved April 13, 2023, from <https://www-statista-com.skema.idm.oclc.org/statistics/186807/worldwide-investment-in-sustainable-energy-since-2004/>
- [2] [3]. International Energy Agency. (2022). World Energy Outlook 2022. <https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf>
- [4]. International Renewable Energy Agency. (2021). Renewable Power Generation Costs in 2021. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Jul/IRENA_Power_Generation_Costs_2021.pdf?rev=34c22a4b244d434da0accde7de7c73d8
- [5]. Scatec-Annual-Report. (2022), P6, Operational & Financial, Plants in operation. https://scatec.com/wp-content/uploads/sites/7/2023/03/Scatec-Annual-Report_2022.pdf
- [6]. Scatec-Annual-Report. (2022), P31, Power plants in operation. https://scatec.com/wp-content/uploads/sites/7/2023/03/Scatec-Annual-Report_2022.pdf
- [7]. Cavusgil, S.T. and Riesenberger, J.R. (no date) “Who Participates in International Business? 1.3 Identify major participants in international business.,” in G. Knight (ed.) International Business: The New Realities. 5th edn. O'Reilly.

- [8]. Scatec Investor Presentation February. (2023), P23-P25, Scatec's integrated business model.
https://scatec.com/wp-content/uploads/sites/7/2023/02/Scatec-Investor-presentation_February-2023.pdf
- [9]. Scatec Solar and Norfund sign partnership agreement to develop and invest in solar power projects in developing countries - Scatec. (2014). Scatec.
<https://scatec.com/2014/08/30/scatec-solar-and-norfund-sign-partnership-agreement-to-develop-and-invest-in-solar-power-projects-in-developing-countries/>
- [10]. Kine. (2022). Scatec is starting construction of solar and battery project in South Africa after reaching financial close - Scatec. Scatec.
<https://scatec.com/2022/07/19/scatec-is-starting-construction-of-solar-and-battery-project-in-south-africa-after-reaching-financial-close/>
- [11]. Kine. (2023). Scatec makes first drawdown under non-recourse loan facility for Mendubim solar project in Brazil - Scatec. Scatec.
<https://scatec.com/2023/03/23/scatec-makes-first-drawdown-under-non-recourse-loan-facility-for-mendubim-solar-project-in-brazil/>
- [12]. Kine. (2022). Scatec and partners sign PPA and start construction activities at the Mendubim solar project in Brazil - Scatec. Scatec.
<https://scatec.com/2022/07/08/scatec-and-partners-sign-ppa-and-start-construction-activities-at-the-mendubim-solar-project-in-brazil/>
- [14]. Kine. (2022). Scatec refinances six power plants in Egypt with a Green Project Bond - Scatec. Scatec.

<https://scatec.com/2022/04/28/scatec-refinances-six-power-plants-in-egypt-with-a-green-project-bond/>

[15]. Scatec-Annual-Report. (2022), P20.

https://scatec.com/wp-content/uploads/sites/7/2023/03/Scatec-Annual-Report_2022.pdf

[16]. International Energy Agency. (n.d.). Energy Technology Perspective 2023 (p. 5).

[17]. Scatec Solar acquires SN Power, building a global leader in renewable energy - Scatec. (2020). Scatec.

<https://scatec.com/2020/10/16/scatec-solar-acquires-sn-power-building-a-global-leader-in-renewable-energy/>

[18]. Renewables Now. (2022). **Scatec wins 50-MW solar project in Botswana.**

https://global-factiva-com.skema.idm.oclc.org/ha/default.aspx?page_driver=searchBuilder_Search#./!/?&_suid=168047040194005842107997027104

[19]. Renewables Now. (2019). **Scatec Solar wins 360 MW in Tunisian tender.**

https://global-factiva-com.skema.idm.oclc.org/ha/default.aspx?page_driver=searchBuilder_Search#./!/?&_suid=1680470674980028349679822886475

