



The Green Gambit – Investing for corporate strategic advantage in the post-COVID-19 world

Gambit: “A clever action in a game or other situation that is intended to achieve an advantage and usually involves taking a risk” [Cambridge Dictionary]

Dr. Michael Kolk, Rodrigo P. Navarro, Jonas Fagerlund, Adnan Merhaba

In the period prior to the pandemic, climate change and sustainability had been rising higher than ever before on the strategic agendas of large companies. Yet despite the availability of capital for green investment, both companies and investors remained cautious, and progress towards transformational change was still remarkably slow.

The pandemic has transformed the environment for green investment, unlocking new opportunities as governments, corporates and investors all take a fresh look at their priorities. As this article explains, now is the time for companies to adopt a new focus on nurturing disruptive innovations, making bold strategic gambits that will drive green transformation.



Although COVID-19 may have temporarily pushed climate change off daily global newsfeeds, 2020 was, in fact, a year in which global political ambitions towards addressing climate started to look much more robust, with, for example, new greenhouse gas reduction targets agreed in Europe and the US rejoining the Paris accord. (See also the companion article, “Green energy – How to outsmart disruption and future-proof business models”, in this issue.) One of the positive consequences of COVID-19 has been a resetting of global priorities towards green investment as a means of rebuilding economies.

In this article we look at how COVID-19 has transformed the environment for green investment and argue that now is a perfect time for companies to make the sort of bold strategic moves towards green transformation that previously seemed too risky.

What was holding up progress before the pandemic?

As we have argued in our recent report, “Breaking the Mold”¹, industrial companies should be well positioned to help address mankind’s “mega-needs”, but they are always dependent on three building blocks:

1. Winning **technology**, often from different types of players from across the innovation ecosystem, on which breakthrough green solutions critically depend
2. **Scale** and scale-up capabilities, to rapidly reach the economic and market dominance needed to create lasting value and make a serious impact
3. **Capital**, to sustain rapid and successful development all the way from concept to commercialization

The coming together of these three factors in a virtuous cycle for innovation-driven breakthroughs is at the heart of many Silicon Valley successes. But when it comes to “mega-needs”, such as storing and transporting energy and mitigating carbon emissions, this cycle has been far from perfect. In particular, **capital** has been restricted: companies have been unable to attract capital in sufficient amounts to make green investments; and investors, despite being awash with “green-labeled” cash, have been unable to find matching opportunities with acceptable risk/reward profiles.

1. “Breaking the mold: Unleashing the power of convergence in the chemical industry”

In 2019, the Climate Policy Initiative estimated that global “climate finance” flows totaled a record USD 580bn, split approximately evenly between public and private sources². Although a record, the amounts of green capital actually fell far short of what was believed to be required to limit global warming to 1.5 degrees Celsius above pre-industrial levels. Equally, there were many shortcomings when it came to channeling green capital between the myriad players involved.

Underlying all of this has been reluctance on the part of both governments and large corporates to make bold moves towards the greening of business, due to the perceived risks and difficulty in achieving the sort of scale required to provide the necessary rates of return.

The new drivers for green growth

The pandemic has led governments, corporates and investors to take a fresh look at their priorities. Suddenly, “business as usual” prior to the pandemic is no longer a viable option for the future, and the global suffering caused by the pandemic has provided an all-too-real foretaste of the even more serious risks of climate change.

Governments

Governments have had to intervene to prop up collapsing economies in hitherto unprecedented ways, and will need to invest substantially in infrastructure and other stimuli to rebuild economies in the coming years. Investments in green initiatives have been widely touted as a viable route forward to prevent economic recession, similar to the New Deal mega-infrastructure projects that powered the American economy after the 1929 stock-market crisis. For example, the European Green Deal has an overarching objective of improving the well-being of citizens by making the EU’s economy more sustainable.

2. <https://www.climatepolicyinitiative.org/wp-content/uploads/2019/11/2019-Global-Landscape-of-Climate-Finance.pdf>

It encompasses boosting the efficient use of resources by moving to a clean, circular economy, as well as restoring biodiversity and cutting pollution. As much as 30 percent of the European EUR 1.8 trillion post-COVID-19 recovery budget will be allocated to fighting climate change. Several European governments have announced bans on new cars with internal combustion engines from 2030. Germany is expected to make EV charging mandatory in every service station, while also pushing for a hydrogen strategy, and France announced that only a shift to EVs could save the country's automotive industry.

Investment funds

Investors are going "green", introducing sustainability targets for their investment strategies, and consequently channeling more resources towards sustainable and green opportunities. For example, in January 2020, the world's biggest fund manager, BlackRock, which has USD 7 trillion in assets, stated that it intended to "place sustainability at the center of its investment approach." BlackRock further asserts that it is "... convinced that sustainability- and climate-integrated portfolios provide better risk-adjusted returns to investors."³ This shift has been followed by multiple other investors.

The greening of investments is also supported by the UN's Principles for Responsible Investments (PRI) initiative, which promotes responsible investing based on environmental, social, and corporate governance (ESG). For example, in 2020 the number of signatories (asset owners and investment managers) aiming to work according to the PRI principles grew by 28 percent year on year, with assets under management (AUM) amounting to USD 103 trillion, up from USD 60 trillion five years ago.

3. Source: Blackrock, "2020 letter to CEO", 14 January 2020

Private equity

Private equity (PE) firms have also begun paying more attention to sustainability and climate considerations in their fund operations, monitoring the climate impact of their portfolio companies. Arthur D. Little's pan-European research indicates that 72 percent of fund managers surveyed considered the approach to ESG as the most important differentiating factor when choosing an investment team. This factor was ranked above PE firm governance and team experience levels.

Private equity firms' successes over the last decade, combined with interest rates that are expected to remain low over the next few years, have increased the relative share of funds moving into private equity. In 2001 the allocation of funds for US state and local pensions to private equity was 3.6 percent, whereas in 2019 it had almost trebled to 9.1 percent. One of the benefits of this increased PE allocation is that large new funds are made available for more risky investment opportunities. This makes it much more likely that strong yet disruptive companies, such as those in the green-tech sector, can be properly funded.

New funding routes for early-stage companies

Another trend illustrating the increased appetite for higher-risk investments is the growth of the special purpose acquisition company (SPAC) vehicle. A SPAC is set up and funded solely for the purpose of making an acquisition of a yet unknown target company, and then taking it public. Their inherent "raison d'être" allows public investors earlier access to riskier and less validated venture investment opportunities, which represents a new and accessible asset class, especially for retail investors. They provide founders (and early investors) with the chance for earlier, profitable exits, as well as deliver the opportunity for further market acceptance discovery. On the downside, SPACs are publicly listed, requiring frequent (quarterly) communication with the investor community, which typically expects a continuously improving performance curve. This is not always easy with early-stage companies, which may be unprofitable initially.

From the target company’s perspective, SPACs can have benefits compared to growth funds or venture capital firms, the most important of which are a less sophisticated transaction process and the possibility of being partly compensated in cash earlier in the game.

SPACs have grown enormously, raising more than USD 80bn in 2020 alone, even outnumbering traditional IPOs in the US; this has accelerated how (usually early-stage) ventures go public. This trend has been especially strong in the green energy/electric vehicle field, with 2020 SPACs – including Nikola, Lordstown, Hyliion, QuantumScape, Fisker, Arrival, ChargePoint, EVBox and Stem – driven by investors that aim to identify and benefit from the potential upside of the “next Tesla”. Demonstrating this, VW Group is thought to have invested USD 300mn in the start-up QuantumScape pre-SPAC. At the time of writing this article, QuantumScape’s market capitalization has multiplied by over a factor of 5 post-SPAC, reaching over USD 17 billion.

The virtuous cycle

Greater availability of the right sort of capital is now more effectively closing the loop of a virtuous cycle, driving growth across the green technology ecosystem, as shown in Figure 1.

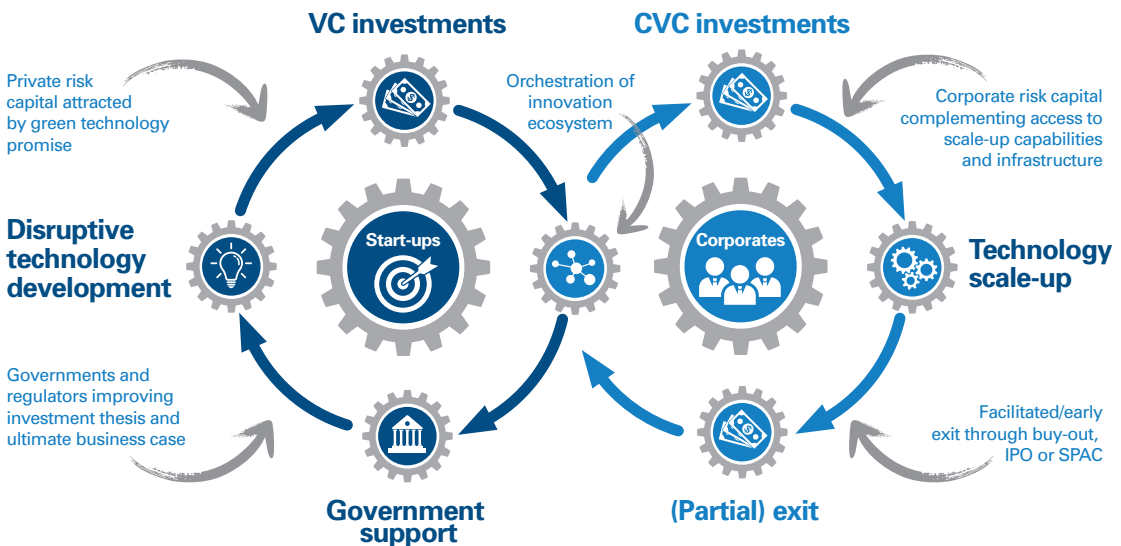


Figure 1: Virtuous cycle among start-ups (technology developers), VCs and other providers of risk capital and corporates (for scale-up)

This cycle links corporates, start-ups and investors, whereby technology development is fueled increasingly by public and private venture capital, with corporate venture capital, facilitated by easier and more profitable exit routes, driving scale-up and commercialization.

The evidence from the stock market

Recent comparative analysis of stock-market indices across traditional energy, broad sustainability, and sector-specific sustainability indices serves to confirm these trends (see Figure 2):

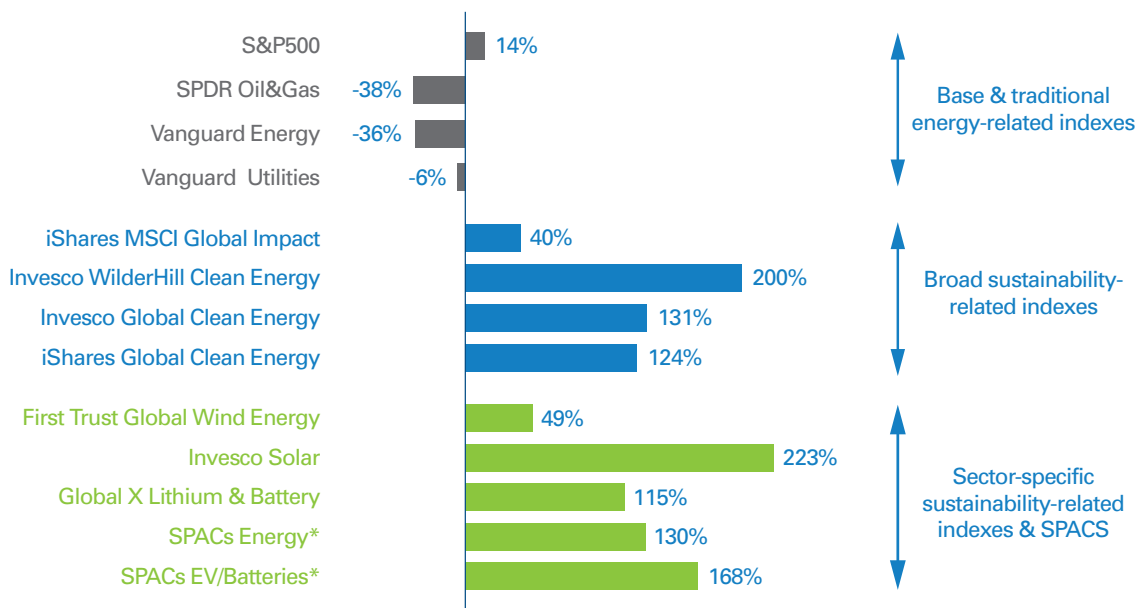


Figure 2: Performance of different exchange traded fund indexes through the COVID-19 pandemic year

- Green/sustainable indices were more resilient during the peak of the pandemic, consistently generating returns for investors that outperformed their counterparts.
- Despite the broad economy ending 2020 with a positive approximately 15 percent return, traditional energy-based sectors largely underperformed, showing a negative return of approximately 30+ percent. (See also the companion article “Green Energy: How to outsmart disruption and future-proof business models”.)

Source: Thompson Reuters: * selected SPACs with completed mergers by end of 2020 - returns vs. IPO price

- There was a significant shift of investor attention to clean energy winners (and, more specifically, solar and lithium/battery/EV sub-sectors), which showed impressive triple-digit returns.
- Selected SPACs in those sectors showed similarly impressive returns, demonstrating strong public investor appetite for such early-stage ventures.

What moves should companies make?

Given such a major positive shift in the environment for green investment, what sort of gambit should companies adopt to take best advantage of greater volumes of better connected investment funding ahead of the competition?

We believe that companies need to focus on two important but challenging things:

- Adopting new approaches to **nurturing disruptive ventures** that may be outside normal core business
- Working collaboratively to **shift the entire business ecosystem**, which is often needed to successfully deliver green initiatives

Nurturing disruptive ventures – The SPAC route

Most corporates have set up innovation organizations and programs, but with mixed results in terms of effectiveness. Some create innovation groups with clear separate parallel organizations to the core business, while others embed innovation activities within existing operations. Some emphasize an internal *build-within* approach, while others choose a more *build-with* approach, leveraging more external cooperation and/or investments.

Corporates have historically struggled with *disruptive build-within* as most funding is allocated to lower-risk activities, and so have recently been stepping up their corporate

venture capital (CVC) arms as a favored option for *disruptive build-with* opportunities (i.e., taking equity investments in, and collaborating with, external ventures). In 2019 CVCs participated in over 3,200 investment deals valued at USD 57.1bn⁴, which comprised nearly one-quarter of all investments in start-ups. Yet, despite this prolific growth, more than 50 percent of newly founded CVCs became inactive after the first year of operations, while others faced significant challenges in balancing their multiple game objectives (strategic versus financial) and realizing value from their innovation activities.

Some CVCs emphasize the “soft” and strategic aspects of the start-up investment (providing a window into new markets or technologies), while others pay increasing attention to the actual financial returns they are getting. Either way, the longer corporate investments remain in “private equity mode”, the more difficult internal assessment of their potential success becomes and the more likely they are to be dropped.

Traditionally, companies have looked towards IPOs and spin-outs to monetize such investments halfway through their growth, but both routes have major drawbacks:

- Going public via an IPO is perceived as positive, as it gives real market visibility and credibility and comes with associated realistic valuations. However, successful IPOs in the industrial sector historically required cashflow predictability before moving to the end game of a listing, which often takes many years to establish.
- Spinning out an emerging early venture team as a private entity from the corporate structure is also not a straightforward option, as it involves the need for raising additional external capital and inevitable investor questions about the team’s reliance on the mother corporation.

4. Source: “The 2019 Global CVC report” – CB insights

Given the drawbacks of existing exit vehicles, the SPAC route could fill a growing need for both corporates and investors:

- Corporates can take advantage of shorter “private equity” timelines, investing earlier (and more cheaply) in public ventures that fit well with their own strategies/visions (such as VW with QuantumScape). This could be seen simply as a natural evolution of the “standard” CVC model, in which corporate venture arms coinvest with both VC firms and public/retail investors. Target companies would have to increase their transparency levels earlier in the process to meet market requirements.
- Corporates could also spin out internal ventures faster via the SPAC route, as a way to further mitigate investment risks, distribute their funding burdens, and potentially increase the success rate of corporate incubators via a faster public listing. We believe that monetizing an internally incubated venture via a public listing, although less frequently used, is a largely untapped source of innovation potential.

We predict that with the rise of SPACs, external investors will become increasingly hungry for such earlier-stage, less validated, but potentially disruptive ventures. The “start-up pool” of ventures, which normally comes from high-tech universities, can be greatly enhanced by a new “corporate start-up pool”, which can be made more transparently investable via these new instruments. As our own research indicates, there is increased interest in investing in corporate spin-offs.

Demonstrating this, Engie decided recently to spin out EVBox (a start-up specializing in EV charging, which it acquired in 2017) publicly via a SPAC. This should provide EVBox with a valuation in excess of USD 1.4bn in a very short time frame. The completion of this transaction is likely to allow Engie to realize significant gains from its initial investment, while still retaining a 40 percent stake to benefit from any future additional upside.

We believe that SPACs provide the opportunity to significantly evolve corporate venturing, further increasing its appeal both internally to corporate managing boards and externally to public investors.

Shifting the business ecosystem – “Hyper-collaboration”

Complex, market-disrupting technology works best as a virtuous cycle (as shown in Figure 1), in which different elements of the ecosystem (technology developers, start-ups, risk-capital providers, corporates) work in harmony to ensure seamless operations. This is true especially for green energy ecosystems, where many players have been forced to move out of their comfort zones to combat the ever-increasing competitive and disruptive landscape.

To be successful, each player needs to adopt an ecosystem perspective, considering themselves not companies within their own industries, but rather, part of a broader ecosystem that could include both competitors and players from other industries. Shifting the ecosystem may require players to reinvent themselves, leveraging the innovative tools at their disposal to provide optimal ecosystem value from their respective viewpoints. This is much more than just traditional collaboration with partners. It requires a fundamental shift in company perspective away from selecting partners to help support established core business, towards redefining the role of the company in the context of an ecosystem-oriented goal⁵. There are some good examples of this in the green-tech space:

5. Refer also to “Ecosystem innovation – The growth of hyper-collaboration in a fast-moving world” [Prism S1 2017]

- Battery supplier Panasonic, competing against Korean and Chinese players in the Li-ion battery market, established a JV with Japanese car maker Toyota and is now aggressively exploring European partnerships with energy player Equinor and materials provider Hydro to establish a sustainable and competitive European battery business.
- Engie chose Texas Pacific Group (TPG) to bring EVBox public not solely due to its financial expertise, but also because it hoped that the firm would help the business accelerate in the US market.
- Total has been one of the most aggressive players in the energy space, with acquisitions of SunPower (solar) and Saft (battery) and a recent partnership with PSA Group to establish a European automotive battery company designed to counter Asian rivals.
- Freyr, an emerging Norwegian battery developer (partially EU funded), selected US start-up 24M as key technology for scaling up (backed by Japanese Corporates Itochu and Kyocera and the Thai NOC subsidiary GPSC) and plans to fund the massive manufacturing effort in the EU via a SPAC (with investors originating from the oil & gas sector).

Insights for the executive

As we have seen, an upside of the pandemic has been a new drive and willingness on the part of governments and investors to support green initiatives as the world starts the journey towards economic recovery.

What we have called the Green Gambit involves companies adopting a new focus on nurturing disruptive ventures and redefining the role of the company as part of a broader ecosystem, collaborating with others to make an enduring shift towards a greener economy. Using the Green Gambit, executives will need to act strategically to:

- 1. Understand and map out the green field in its broad sense** across multiple value chains, including different types of players (industrials, software, capital, governments), as well as “non-obvious” actors in other sectors. The game must be understood as a whole in all its complexity. The Engie/EVBox/TPG interplay mentioned above is a good example.
- 2. Anticipate other players’ targeted moves and interests within multiple scenarios.** If there is a big opportunity out there, you cannot assume that you will solely be competing against traditional players, as Total demonstrated in competing across the solar and battery fields.
- 3. Leverage the latest developments and move fast,** accepting a greater degree of uncertainty and embracing more dynamic portfolio management, decision-making and strategy execution. There is no room or time to wait for certainty and bullet-proof validation of which strategy will win (as the QuantumScape/VW case mentioned above illustrates).

4. Execute with partners, working within a chosen ecosystem consistent with the company's narrative for "green growth". The game is no longer played in isolation – consortia will rule the green revolution, as the Panasonic/Equinor/Hydro and Freyr/24M/Itochu/GPSC partnership strategies show.

The pandemic has led to a uniquely favorable environment for green initiatives. Now is the time for companies to make their opening moves and act strategically to win the game.

Dr. Michael Kolk

is a Managing Partner in Arthur D. Little's Amsterdam office and a global leader of the Technology & Innovation Management (TIM) Practice.

Rodrigo P. Navarro

is a Principal in Arthur D. Little's Amsterdam office and a member of the Technology & Innovation Management (TIM) Practice.

Jonas Fagerlund

is a Partner in Arthur D. Little's Stockholm office and a member of the Strategy & Organization Practice.

Adnan Merhaba

is a Partner in Arthur D. Little's Dubai office and a member of the Energy & Utilities Practice.