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# The European Solar Champion



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### **The European Solar Champion**

There's a solar firm I really think you should invest in right now.

I can't lie: it's risky. In 2020, it completely changed its strategy and overhauled its business to start manufacturing solar cells and modules in – of all places – Europe.

Since Germany kicked off the solar industry boom in the 2000s, China has taken over, and continues to dominate the sector.

Now, this company aims to beat the Chinese at their own game. It's a daring tactic, but one that I think just might work, especially as the company benefits from increasingly strong political tailwinds.

And this Swiss firm already has momentum. It has been a leading equipment supplier to the solar industry for around 20 years, though it has never found a way to truly monetise its proprietary technological expertise.

However, by changing its strategy, I think that it will finally be able to do just that.

The firm has already started buying up cheap solar assets in a move that will relocate part of Europe's renewable energy supply chain away from China and closer to home.

But the change of strategy is by no means the sole reason why I think this company is a worthy investment.

Perhaps the thing that really excites me about this firm is that it owns a large chunk of a small Oxford University spin-off that is behind potentially the biggest technological advancement since solar technology emerged in the 1950s.

This company is at the head of a worldwide race to make a more efficient solar cell.

The solar panels that this spin-off is developing will be able to generate almost a thirdmore electricity than traditional panels, making them the most efficient in the world.

And it's now begun manufacturing these solar panels and delivering them to the public.

This could be a massive fillip for this beaten-down Swiss manufacturer.

All things considered, I think that now is the time invest in the company, before both these panels hit the market and its manufacturing plans come to fruition.

In short, I'm recommending you invest today in Meyer Burger (SWX: MBTN).

#### Your recommendation: Meyer Burger (SWX: MBTN)

Switzerland's Meyer Burger is a long-time supplier of high-tech machinery to solar cell and panel manufacturers.

Specifically, it sells things like fine-drilling diamond wire-saw machines used forslicing silicon into wafer-thin layers for solar panels.

The company has been around since the 1950s, but it didn't enter the solar marketuntil the turn of the millennium

As Germany drove the emerging solar industry forward in the 2000s, Meyer Burger's panel manufacturing equipment was in high demand.

Its stock soared in the mid-2000s, before the financial crisis brought it to its knees and it fell 80% peak to trough. Although the share price briefly climbed back to its previous highs, the European solar industry has since been beset by difficulties.

The biggest of these is the falling cost of panels and Chinese competition.

Most of today's most significant photovoltaic makers are located in China, where fierce competition has resulted in panel costs declining by around three-quarters over the last decade.

This has made it a tough market for suppliers such as Meyer Burger. As you'll see in the financials section, the company has not been generating sufficient revenues to cover costs in recent years, and so has operated at a loss.

Nevertheless, the firm has remained a technological leader.

In 2021, it opened up new solar-panel production facilities in Bitterfeld-Wolfen, Germany, where it receives government support for environmentally friendly production concepts.

And keep in mind that this was before Russian President Vladimir Putin's attack on Ukraine inspired European nations to redouble their efforts at decarbonisation. Germany, for instance, announced in March that it is spending €200 billion to revolutionise its economy, and that includes climate spending to promote hydrogen, electric vehicles, and – importantly for our purposes – solar.

The company could be uniquely suited to profit from this windfall. The firm is credited with bringing so-called PERC technology to market and driving it to become the industry standard over recent years.

But now it has developed its latest "heterojunction", or HJT, panels with what's

called SmartWire (SWCT) connectivity. This is another step forward.

HJT cells combine two solar technologies – crystalline solar and thin-film photovoltaics – to maximise the amount of solar energy that can be captured by a cell.

Thin films of silicon are layered over the front and back of the cell, so the dual technology also makes it a bi-facial solar cell. This means that both sides of the panel can generate electricity, as well as squeezing an extra amount of yield out of thefront.

SmartWire, meanwhile, is a patented technology for connecting solar panels in a row, with wire foil replacing the traditional metal bars that you might be accustomed to seeing.

Solar cells with a SWCT connection are less susceptible to cracking, and have bettercurrent flow due to reduced resistance.

The wires also reduce shading on the cell surface. As a result, panels connected by the technology are more efficient and longer lasting.

#### Tech that's three years ahead of the competition

According to a report published in 2019 by Germany's renowned Fraunhofer Institute, Meyer Burger's HJT/SWCT technology may be three years ahead of the competition, potentially generating more energy per square metre than any other technology on the market.

Fraunhofer ISE confirmed a record efficiency of 25.4% for a heterojunction solar cell manufactured with Meyer Burger's technology in May 2020, the firm said.

The company itself believes that a single-junction HJT cell will achieve 26% efficiency by 2030.

Meyer Burger is convinced that its HJT technology and SWCT combination is now fully industrialised and ready for mass manufacturing.

But the company has ambitious plans. It doesn't simply want to sell this technology to a Chinese module manufacturer. Oh no.

In a move that shocked solar-industry analysts, in June 2020 Meyer Burger announced that it plans to become a dedicated HJT solar modules manufacturer and exclusively use its own technology in-house.

This is game-changing for the company, putting an end to its days as a photovoltaic production equipment provider and marking the beginning of a period in which it will bring solar cell and module production back toEurope.

#### Fortune favours the bold

Meyer Burger's plans to build up large-scale cell and panel production in Europe – in Germany, specifically – were nothing if not ambitious.

And in July 2021, it manufactured its first solar cells. The company expects to reach full production capacity this year.

By the end of 2022, the firm intends to increase its annual capacity to 1.4 GW of cell and 1 GW of module production.

The Swiss manufacturer also plans to develop a new 400-MW module production facility in 2023, bringing is module production capacity to 1.4 GW.

The company plans to increase both cell and module production capacity to 5 GW by 2026, and to 7 GW by 2027 .

It has already raised CHF 165 million and €185 million to finance the expansion of production capacity for its highly efficient solar cells and solar modules, with potential output covering almost a third of annual new European panel demand by the middle of the decade.

As part of the plan, in 2020 Meyer Burger bought the stock and patents of Germany's bankrupt SolarWorld AG, and rented a factory south of Berlin to build the solar modules. It paid just  $\leq 12$  million for the assets of SolarWorld, a company that was worth as much as  $\leq 4.6$  billion in 2007.

The former SolarWorld factory has the capacity to produce 600 MW of modules a year and can be expanded to 800 MW.

Meyer Burger has acquired a 14,000-square-metre distribution centre from SolarWorld to expand module production up to 5 GW by 2026.

It is also renting the site of former German solar cell manufacturer Sovello, whereit plans to produce solar cells based on HJT.

By acquiring existing production sites in Germany, the company is saving significant time and money.

#### A gamble that has every chance of paying off

This is a big gamble, make no mistake. But it's one that Meyer Burger has every chance of pulling off.

The company believes that, since its HJT technology is so far ahead of the game, by setting up as a cell and module manufacturer it can re-establish a solar PV supply chain in Europe, rather than simply selling machines.

It's a brave step, but one that it arguably had no choice in making.

Meyer Burger has not been able to make a profit from its technological leadership in recent years, despite its patented HJT and SWCT technologies.

But, unlike before, when it only sold equipment to solar manufacturers, the company will now capture the full value of its capabilities. It will be entirely vertically integrated.

To protect its intellectual property (IP), it will no longer share future improvements in production facilities with third parties. It will now produce machines for HJT and SWCT tech manufacturing exclusively for its own use.

Meyer Burger will initially focus on making high-efficiency PV modules for the rooftop market, a product that can be sold at a premium price.

The company says it will make a profit even with an output as low as 400 MW/ year, and may be able to eventually create 3,500 jobs. According to the firm's half-yearly report, the company has entirely sold out through to the end of 2021.

#### **Political tailwinds**

Given the current political backdrop, Meyer Burger appears to have timed its move perfectly.

The EU is fully is ramping up European solar generation in order to meet its 2030 climate goals. New climate targets adopted in Brussels have increase the targeted reduction in greenhouse gas emissions to 55% over the period from 1990 to 2030.

Following Russia's invasion of Ukraine in February, the European Commission has also proposed that Europe cut imports of Russian gas by two-thirds in 2022, and is also set to propose plans to phase them out entirely by 2027.

By some estimates, solar capacity may need to grow as much as fivefold to meet the EU's stringent emission goals.

According to researchers at the European Commission's Joint Research Centre, Europeans need to boost installed solar power from about 133 GW in 2020 to at least 455 GW by 2030.

Bringing PV factories back to Europe by linking the renewable-energy transition with cutting-edge manufacturing could lead to steady growth and new jobs, the researchers said.

This proposal received implicit backing in May 2021, when the EU made climate neutrality a key pillar of an historic €750 billion plan to spur economic growth in the wake of the coronavirus pandemic.

Indeed, EU policymakers have long signalled that they would support local

production. In April 2021, they renewed tariffs as high as 75% on solar glass from China.

Be clear: Europe's 2050 net-zero target and the coronavirus economic recovery package could result in billions of euros flowing to help support a European solar boom.

Meyer Burger could be a key beneficiary.

## Its Oxford PV shareholding is worth the investment alone

Another string to Meyer Burger's bow is its near 20% stake in perovskite start-up Oxford PV.

This has the potential to make Meyer Burger a spectacular investment.

Oxford PV is a small, private British company that is developing a new solar technology. In fact, in 2017 it was named in the MIT Technology Review's top 50 most innovative companies in the world, alongside Tesla, Adidas, IBM and Microsoft. And in January this year, the company was even named a 22 Global Cleantech 100 company by Cleantech, a renewable energy consultancy.

Oxford PV is utilising a new material called "perovskite" which is significantly more efficient than anything that exists in the industry.

In fact, studies suggest that efficiency improvements could be up to a third better than the current standard cells which, in the solar game, where every 0.5% counts, is extraordinary.

More than any other development in solar, perovskite – which is actually a compound mineral called "calcium titanium oxide" – is delivering an astonishing rate of improvement in its current applications, with efficiency improving faster than any other solar technology over the last decade.

And Oxford PV has incorporated it into a low-cost, high-efficiency solar cell that will be unmatched once it reaches the market.

And that's where Meyer Burger comes in. The company owns a 19.76% stake in the company, which makes it Oxford's largest outside shareholder. On top of this, Meyer Burger also has the option to eventually increase its stake to 31.6% of the outstanding shares in the company, which would grant it 24% of the voting rights.

This makes Meyer Burger the best available route into public equity ownership of the still-private Oxford PV.

The near 20% stake in Oxford PV alone could well prove to be a big win for Meyer

Burger as the former company moves towards commercial production in 2022.

#### A complicated financial picture

Financially, Meyer Burger's picture is quite complex.

It's hard to say what can be gained from looking at its performances in previous years, given that it has made a business-wide pivot in a new direction.

Instead, we can look at a current snapshot of the financial position of the company, and perhaps make a few comments on the economics of solar more broadly.

To be perfectly honest, though, Meyer Burger's shift towards solar cell and module manufacturing is an indication that the legacy business struggled.

Sales fell from CHF 51 million in 2019 to CHF 17.9 million in 2020. However, this is part of the scaling down of its previous business model as it prepares to pursue the new one outlined above. So, it's not as bad as it seems.

But, looking ahead, the key figures are not on the income statement, but the balance sheet.

Since the company is changing direction, historical underperformance isn't that relevant. So we need to ascertain the current financial position of the company.

At the end of 2021, Meyer Burger had current assets of CHF 231.4 million compared to current liabilities of CHF 181.2 million. Essentially, what this means is that if all payments, debts and business falling due within 12 months were netted out, it would be left with CHF 50.2 million in assets. So its business is not under any imminent threat.

However, as part of the restructuring process, Meyer Burger has taken on new debt, and it intends to take on more to fund expansion as of this year.

It successfully completed a capital raise amounting to CHF 165 million to fund this new endeavour. This was proposed to shareholders in early 2020 at an EGM, and was passed with over 80% of the votes. The capital was raised through a rights offering and a private placement. In 2021, the company raised CHF 80 million from a private placement of new shares, as well as a further €145 million from a private placement of a green convertible bond that will mature in 2027.

Meyer Burger also has access to a debt facility of  $\leq 125$  million and a factoring facility of  $\leq 60$  million, which it secured in June 2021. These essentially function like an overdraft, meaning that the company can opt to use them at any time, but has no obligation to do so if it doesn't require the capital.

And by operating in Germany and buying out former solar manufacturing

facilities, Meyer Burger estimates that it will spend €30 million less in terms of capex than it would if it was starting from scratch.

As mentioned, the company has bought out the operations, patents and property of SolarWorld, a now-defunct solar-panel manufacturer in Germany. This facility will form the backbone of what Meyer Burger hopes will become a 5 GW manufacturing capacity by the middle of this decade.

For context, a GW is enough energy to power 750,000 homes. That means that this single acquisition could power 3.75 million houses in Germany alone.

SolarWorld was, at one point, valued at €4.6 billion, so Meyer Burger has snapped up its assets at bargain prices. With its own market cap standing at around CHF 800 million, if Meyer Burger can capture even a fraction of the investor interest that drove SolarWorld to those levels back in 2007, then there is a huge amount there for investors brave enough to take the plunge at this early stage.

The company's growing balance sheet in 2021 was very positive, too. Cash and cash equivalents rose to CHF 231 million from 2020's CHF 140 million. Sales fell from CHF 90 million in 2020 to CHF 40 million in 2021, which to my mind reflected a firm in the midst of a transition.

One thing is for sure: Meyer Burger will be lavishly funded as it seeks to scale its technology, both by governments and private investors.

#### Let's be clear: this is a high-risk investment

Meyer Burger's change of strategy is certainly risky, and investors should proceed with caution.

Solar manufacturing is an incredibly difficult business to make money from, and companies before Meyer Burger have tried and failed to retrofit old factories into solar-production hubs.

Over the last decade, EU manufacturers have been crushed by the Chinese panel makers that have grown to dominate the global market.

We just need to look at Solar Valley, where Meyer Burger is setting up its production base, to remind ourselves of Germany's solar boom-to-bust years.

Just over a decade ago, this area of central Germany was a bustling PV research and manufacturing hub. But in recent years it has fallen quiet, as China has gained control of the global PV manufacturing sector.

Chinese mono modules are currently valued at around \$0.30/W, while module shipment costs remain relatively low, which could undermine the supposed advantages of local production.

This means that Meyer Burger's units will have to be very cheap to compete. But Meyer Burger knows all this, and remains confident.

According to Meyer Burger's CEO Gunter Erfurt, engineering talent in eastern Germany is now more cost competitive than in Shanghai. What's more, the increasing automation of production lines and surging solar demand in Europe should allow Meyer Burger to help rejuvenate Europe's PV manufacturing sector.

But there's no getting away from it: even with superior cell and module technology, competing against Chinese competitors that manufacture panels on an enormous scale will be very difficult.

This means that Meyer Burger will potentially seek funding through subsidies, incentives and tax breaks.

Investors shouldn't hold this against Meyer Burger, as Europe is keen to reduce its reliance on Chinese manufacturers for PV modules.

"It is helpful that we have entered into a new era of Europe given the Green Deal at the EU level and a lot of local initiatives with the coal exit in Germany," says Erfurt.

It goes without saying that Meyer Burger's manufacturing ambitions will also be very expensive. As mentioned earlier, it has expanded its war chest dramatically, and not a moment too soon.

Lastly, as the stock is listed in Switzerland, you will also be exposed to foreignexchange risk, which could potentially erode profits or accentuate losses.

## The risks are large, but the potential rewards could be even greater

Yes, the stakes are high, but the rewards on offer are potentially stupendous.

To my mind, current solar growth rates in Europe – the EU added a record 25.9 GW of solar in 2021, up 34% from 2020's levels – combined with huge political support for reinvigorating the European solar manufacturing business make this a gamble worth taking.

Meyer Burger is well-positioned to profit from this.

It is effectively seeking to compete with Chinese manufacturers, maintain a technological lead, and aim to meet Europe's surging demand for solar.

What's more, its investment in Oxford PV could pay off big time.

To my mind, Meyer Burger's shares are seriously undervalued.

I'm recommending you BUY Meyer Burger, which is available to purchase via all major brokers.

Action to take: buy Meyer Burger (MBTN.SW)

For full details of current prices and buy up to limits, <u>click here</u> to check the portfolio.

Regards,

Jamas A

James Allen Editor, *Exponential Energy Fortunes*