



# Hydrogen Certificate (H2C)

December 2022

## Strategy

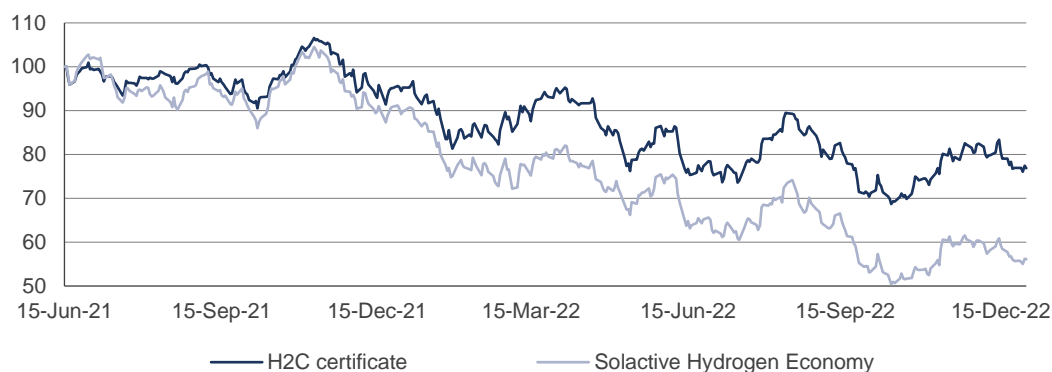
Thematic global equity exposure to best capture the developments of the hydrogen economy.

Concentrated portfolio of 25 stocks that demonstrate above-average thematic exposure, based on materiality assessment. The stock selection process includes proprietary quantitative screens and qualitative evaluation.

Diversified exposure across 4 hydrogen buckets: Core (direct hydrogen sales, electrolyzers, fuel cells), Infrastructure (clean power – upstream – and H2 transportation – downstream), Decarb users (hydrogen as a feedstock/fuel/heat) and Tech enablers (intangible know how that can facilitate the deployment of hydrogen).

## Performance<sup>1</sup>

	MTD	YTD	Since certificate inception
<b>H2C certificate</b>	<b>-4.5%</b>	<b>-19.3%</b>	<b>-23.1%</b>
<b>Solactive Hydrogen Economy</b>	<b>-5.9%</b>	<b>-37.6%</b>	<b>-43.9%</b>



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
<b>2022</b>	-11.9%	6.9%	5.4%	-8.5%	-1.2%	-11.8%	11.1%	-1.7%	-13.3%	4.7%	8.0%	-4.5%	<b>-19.3%</b>
<b>2021</b>						-0.6%	-2.0%	2.3%	-5.9%	8.8%	-4.0%	-2.7%	<b>-4.8%</b>

## Comment

In December the hydrogen strategy posted a negative performance of -4.5%. Results are positive compared to the -5.9% displayed by the benchmark Solactive Hydrogen Economy. From an ESG perspective, we highlight that the portfolio average rating was enhanced from A to AA.

For the full year 2022, the strategy performance at -19.3% is well ahead of its benchmark, which decreased -37.6%.

Over the month, the Core bucket (55.8% of portfolio) was the largest detractor (-4.0%) to the performance in absolute terms due to pure play names suffering (Ballard Power Systems -21.1%, Fuelcell Energy -19.7%, Plug Power -22.5%). However, our underweight positioning on this segment was a positive effect relative to benchmark. Our overweight in Energy was negative (Gaztransport Et Technigaz -15.1%, Equinor -7.2%, whereas TotalEnergies resisted well at -1.1%). At the individual stock level, we emphasize that the stock of Burckhardt Compression extended its upward trend (+7.8%), when the company confirmed its full-year guidance and announced that orders have remained on a very high level since October, allowing it to reach CHF1 billion in order intake since the start of its fiscal year in April 2022.

## Key Information

### Structure

Open-end actively managed certificate (SSPA category: Tracker certificate, 1300)

### Issuer

Zürcher Kantonalbank, Zurich (S&P AAA)

### Investment Manager

Rothschild & Co Bank AG, Zurich

### Asset class

Equities

### Portfolio management strategy

Active

### ISIN

On request

### Currency

USD

### Inception date

15-Jun-2021

### Dividend policy

Net dividend reinvested

### Liquidity

Daily

<sup>1</sup> Risk and return data is calculated net of fees.

Past performance is not a reliable indicator or guarantee of future performance.

## Market update

According to Bloomberg News, Oman said it had received interest from international energy companies for two green-hydrogen concessions near the port of Duqm that will be awarded in March 2023. Investors will develop the areas with solar panels and wind turbines to power electrolyzers and create green hydrogen. More than 40 companies, including TotalEnergies and BP, have purchased request-for-qualification documents for the Omani blocks, an early step before formally bidding.

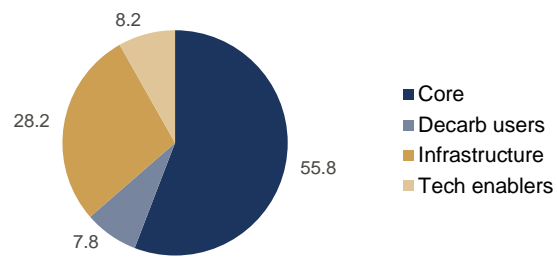
Each project may require USD 4 billion to USD 5 billion of investment in the electrolyzers and renewable-energy facilities, Energy Minister Salim Al-Aufi said. Another round of bids will begin in April 2023 for land near the southern city of Salalah.

The country aims to make at least 1 million tons of green hydrogen a year by 2030, rising to around 8 million by 2050. The government estimates it will take USD 140 billion of investment to reach that target. Oman is one of several Middle Eastern countries, including Saudi Arabia, Egypt and Morocco, seeking to become major exporters of green hydrogen.

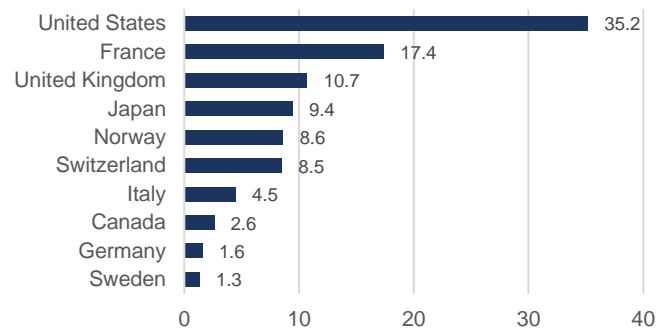
## Portfolio rebalancing

We reduced the exposure to the energy sector (Gaztransport Et Technigaz -2.0%, Equinor -1.0%, TotalEnergies -1.0%) and increased the exposure to hydrogen pure-plays (Ballard Power Systems +1.0%, Plug Power +1.0%, NEL +1.0%).

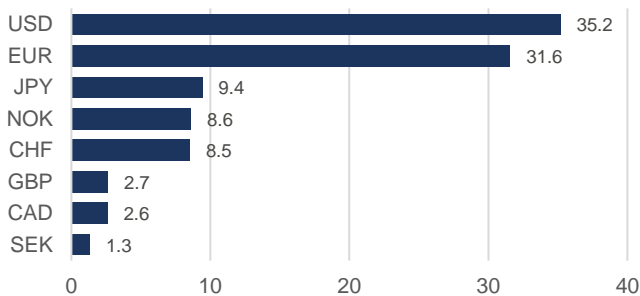
## H2 "bucket" allocation (%)



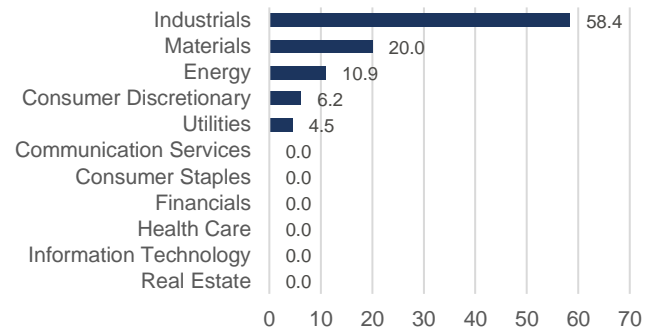
## Country allocation (%)



## Currency allocation (%)



## Sector allocation (%)



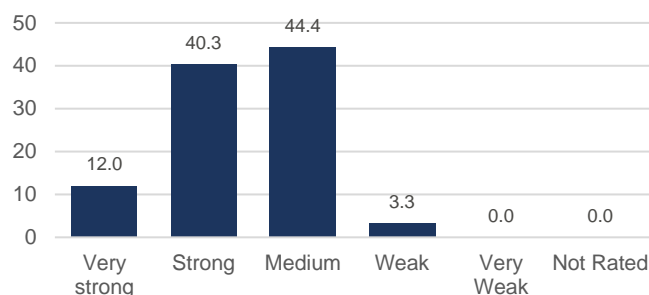
## Top 10 holdings

Rank	Company name	Country	Sector	H2 "bucket"	Weight
1	Linde PLC	United Kingdom	Materials	Core	8.1%
2	ABB AG	Switzerland	Industrials	Core	7.2%
3	Air Liquide SA	France	Materials	Core	7.1%
4	IDEX Corp	United States	Industrials	Infrastructure	6.6%
5	Bloom Energy Corp	United States	Industrials	Core	6.3%
6	Toyota Motor Corp	Japan	Consumer Discretionary	Decarb users	6.2%
7	Emerson Electric Co	United States	Industrials	Infrastructure	5.3%
8	AECOM	United States	Industrials	Tech enablers	5.0%
9	NEL ASA	Norway	Industrials	Core	4.9%
10	SNAM S.p.A.	Italy	Utilities	Infrastructure	4.5%

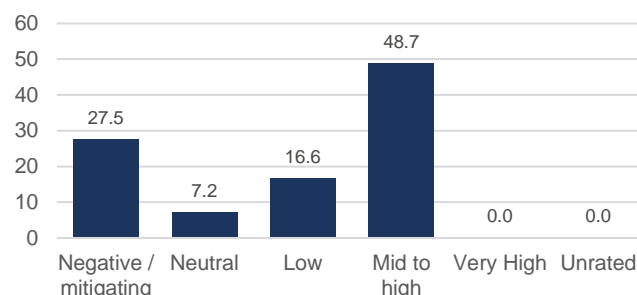
## ESG portfolio characteristics

Portfolio ESG track record	Strong	Portfolio carbon exposure	Low
Portfolio average rating	AA	Average CO <sub>2</sub> sales intensity	404.2

### ESG – Position distribution (%)



### Carbon – Position distribution (%)



### Largest positions

Company name	Weight	ESG track record	MSCI ESG rating	Carbon exposure risk	CO <sub>2</sub> sales intensity
Linde PLC	8.1%	Medium	A	Mid to high	1332.8
ABB AG	7.2%	Strong	AA	Neutral	14
Air Liquide SA	7.1%	Medium	A	Mid to high	1370.4
IDEX Corp	6.6%	Strong	AA	Low	16.8
Bloom Energy Corp	6.3%	Medium	BBB	Negative / mitigating	190.3
Toyota Motor Corp	6.2%	Medium	A	Mid to high	26.3
Emerson Electric Co	5.3%	Medium	A	Mid to high	45.6
AECOM	5.0%	Strong	AA	Negative / mitigating	5.5
NEL ASA	4.9%	Strong	AA	Negative / mitigating	16.5
SNAM S.p.A.	4.5%	Strong	AA	Mid to high	380.9

### Remarks

- The ESG track record and the MSCI ESG Rating measure how well a company performs on environmental, social and governance issues compared to other companies (peers) in the same industry. The importance of the 3 different factors varies by industry. Companies with a below average ESG track record / MSCI ESG Rating are considered riskier since they are more likely to be impacted by factors such as controversies, new social and environmental regulations, bad reputation, litigation risk, poorly motivated work force and financial mis-management.
- The Carbon Exposure Risk measures the probability and severity that a company is negatively impacted by climate change. Climate change exposure can be physical, for example through extreme heat or flooding, policy related, for example through the introduction of a carbon tax, or technological, for example through competitors developing greener products. The risk is a function of the company's exposure to climate change and of how well the company is managing that exposure.
- The CO<sub>2</sub>e Sales Intensity measures how much CO<sub>2</sub> equivalents are emitted by a company per USD 1 million sales in the most recent reporting year as reported by MSCI ESG Research. The emissions are direct emissions generated by sources owned or controlled by the company and those from the generation of purchased energy.
- The ESG distributions in the charts exclude money market and derivative positions such as foreign currency forwards.

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