

The logo consists of the lowercase letters 'cph' in a white, sans-serif font, positioned within a white rectangular area that has vertical lines extending upwards from the top edge.

cph

Annual Report **2021**

CPH Chemie + Papier Holding AG



Key figures

The CPH Group

in CHF thousand	2021	2020	2019	2018	2017
Net sales	496 693	445 189	524 657	533 543	469 767
Earnings before interest, taxes, depreciation and amortization (EBITDA)	25 718	55 151	87 994	83 121	33 761
in % of net sales	5.2	12.4	16.8	15.6	7.2
Earnings before interest and taxes (EBIT) before impairment	-2 667	24 663	56 600	51 633	2 901
in % of net sales	-0.5	5.5	10.8	9.7	0.6
Earnings before interest and taxes (EBIT)	-152 667	24 663	56 600	51 633	2 901
in % of net sales	-30.7	5.5	10.8	9.7	0.6
Financial result	-3 859	-4 652	-5 647	-5 976	-6 604
Earnings before taxes and extraordinary items	-156 526	20 011	50 953	45 657	-3 703
Net result for the year ¹⁾	-151 410	46 963	48 453	42 280	16 187
in % of net sales	-30.5	10.5	9.2	7.9	3.4
in % of equity	-48.8	10.0	11.0	10.4	4.1
in % of total capital	-27.0	6.7	6.9	5.3	2.3
Cash flow	16 659	45 841	79 943	68 961	14 467
Investments in tangible fixed assets (gross)	22 965	17 507	21 888	22 299	32 314
Free cash flow	-3 380	39 683	139 926	-80 488	12 857
Adjusted free cash flow ²⁾	-3 380	39 683	39 926	19 512	12 857
Balance sheet total ¹⁾	560 398	704 233	702 658	800 469	697 552
Fixed assets	270 695	432 893	436 017	447 172	455 307
in % of balance sheet total	48.3	61.5	62.1	55.9	65.3
Equity ¹⁾	310 494	471 867	441 289	407 144	396 245
in % of balance sheet total	55.4	67.0	62.8	50.9	56.8
Net cash	-14 631	-1 549	-29 502	-56 890	-73 071
Personnel at year-end	1 104	1 098	1 086	1 081	1 019

¹⁾ Including minorities

²⁾ Excluding (for 2018 and 2019) CHF 100 million fixed-term deposit of funds generated by bond issue of 12.10.2018, repaid 9.7.2019

CPH Chemie + Papier Holding AG

in CHF thousand	2021	2020	2019	2018	2017
Net result for the year	-46 579	14 335	52 553	13 089	7 084
Equity	384 439	441 907	438 380	396 588	387 358

Per-share statistics

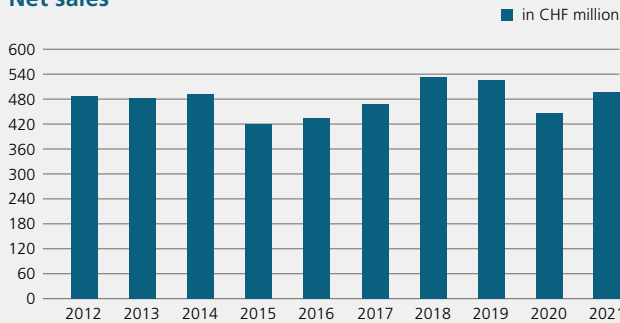
in CHF	2021	2020	2019	2018	2017
Share price					
high	75.40	80.80	88.50	89.00	57.30
low	58.20	57.00	74.00	54.00	39.00
on 31 December	61.00	72.60	79.20	82.50	53.55
Equity per share ¹⁾	51.52	78.46	73.56	67.87	66.06
Net result per share ¹⁾	-25.26	7.82	8.06	7.05	2.66
Cash flow per share ¹⁾	2.78	7.64	13.33	11.50	2.41
Distribution per share ²⁾	1.30	1.80	1.80	1.80	0.65

¹⁾ Based on consolidated financial statements and excluding minorities

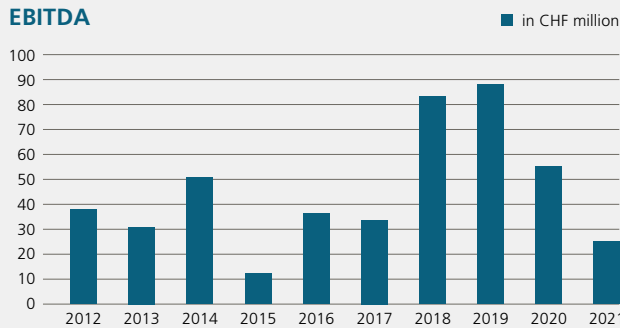
²⁾ For 2021: recommendation

At a glance

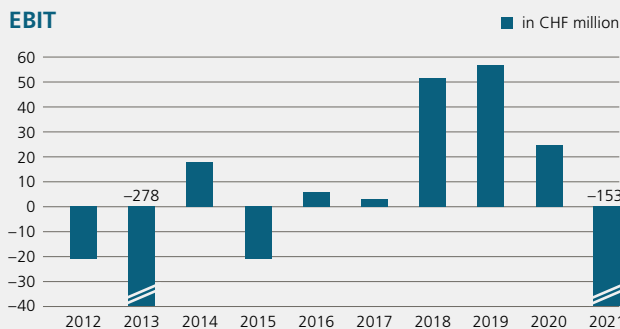
Net sales



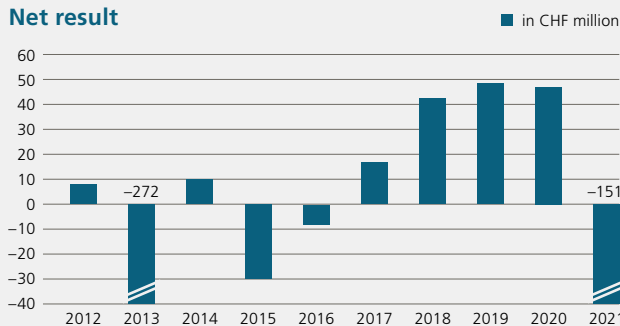
EBITDA



EBIT



Net result



The CPH Group

Business in 2021

- Net sales raised year-on-year in all three divisions
- Steep increases seen in raw materials and energy prices
- Profitability up on 2020 in Chemistry but down in Paper and Packaging
- Impairment to Paper plant
- Investments in expanding capacities

in CHF million	2021	2020
Net sales	496.7	445.2
EBITDA	25.7	55.2
EBIT*	-2.7	24.7
EBIT	-152.7	24.7

* before impairment

Portrait

The CPH Group is active in three separate industrial segments developing, manufacturing and distributing chemicals, printing paper and pharmaceutical packaging films. The stock exchange-listed group is headquartered in Switzerland and has production facilities at 11 locations in six countries in Europe, Asia and North and South America. The CPH Group can look back on more than 200 years of industrial tradition.



Chemistry

Business in 2021

- Stronger demand felt in all product segments
- Net sales increased 30%
- EBIT margin tripled to new record high
- Investments in new facilities in Louisville, Donghai, Zvornik and Rüti
- Construction begun of new US office building

in CHF million	2021	2020
Net sales	95.1	73.3
EBITDA	20.5	9.5
EBIT	15.3	4.6

Portrait

The Chemistry Division is a world-leading supplier in the silicate chemistry field. Trading under the 'Zeochem' brand, the division manufactures molecular sieves for industrial and medical applications, high-value chromatography gels for the pharmaceutical sector and deuterated products for analytics, pharmaceuticals and OLED displays. Zeochem maintains production facilities in China, the USA, Bosnia & Herzegovina and Switzerland.



Paper

- Further market shares gained
- Net sales increased through higher sales volumes
- Predatory competition intensifies
- Lower paper prices and record high recovered paper prices prompt negative EBIT result
- Collaboration with Schilliger Holz AG

in CHF million	2021	2020
Net sales	230.9	209.6
EBITDA	-8.0	17.4
EBIT*	-24.9	-2.0
EBIT	-174.9	-2.0

* before impairment

The Paper Division is Switzerland's sole manufacturer of newsprint and magazine paper and its biggest recycler of domestically recovered paper. The papers produced are largely exported, mainly to the Eurozone. The products, which are sold under the 'Perlen Papier' brand and have been well established in the market for decades, are made from recovered paper and waste wood from sawmill and forest thinning operations.



Packaging

- Decline in demand for medicines as the COVID pandemic continues
- Net sales raised through higher prices and higher-value products
- Double-digit net sales growth in Latin America and Asia
- Record high raw materials costs depress EBIT margin

in CHF million	2021	2020
Net sales	170.7	162.3
EBITDA	11.9	27.8
EBIT	5.7	21.6

The Packaging Division aligns its business primarily to the requirements of the pharmaceutical industry, and is one of the world's three biggest suppliers of coated plastic films. The division's products, which are manufactured at locations in Switzerland, Germany, China, the USA and Brazil, are marketed under the 'Perlen Packaging' brand and are used mainly in blister packs to protect the medicines these contain.

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Cover picture

The PM 7 paper machine in Perlen is one of Europe's most advanced, and can produce up to 360 000 tonnes of newsprint a year.

Highlights of 2021

The key events of the business year at the CPH Group in brief



The CPH Group companies at the Perlen operating site participate in a programme of Canton Lucerne providing weekly preventive mass COVID-19 testing. The regular tests prove effective in breaking infection chains. From June onwards, employees and their family members can also obtain COVID vaccinations at the Perlen site.



CPH marks the 20th anniversary of its shares' first trading on the Swiss stock exchange on 11 June 2001. CPH then was strongly focused on Switzerland and generated almost half its sales in its Chemistry Division. Thanks to its continual expansion over the past few years, the CPH Group is now well positioned internationally on the broad foundation of its three business divisions.

January

February

March

April

May

June



Choose
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Neutral**
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Perlen Papier becomes the first producer in the world to offer a carbon-neutral paper product. Perlen Papier's carbon footprint is already some 75% smaller than the European average. Customers can also offset the remaining carbon dioxide emissions via a certified reforestation project in Uruguay.



Perlen Papier receives the IV Award from Lucerne's disability insurance authority for its exemplary integration of persons with disabilities. The company works closely with the authority to find new jobs or other areas of activity for the individuals concerned.



CPH Chemie+Papier Holding AG merges with its main shareholder Uetikon Industrieholding AG. The descendants of CPH's founding families, who previously held shares in Uetikon Industrieholding AG, thus become direct CPH shareholders. The new anchor shareholders with a combined 33.6% of all shares are Swiss Industrial Finance AG and the Ella Schnorf-Schmid estate.



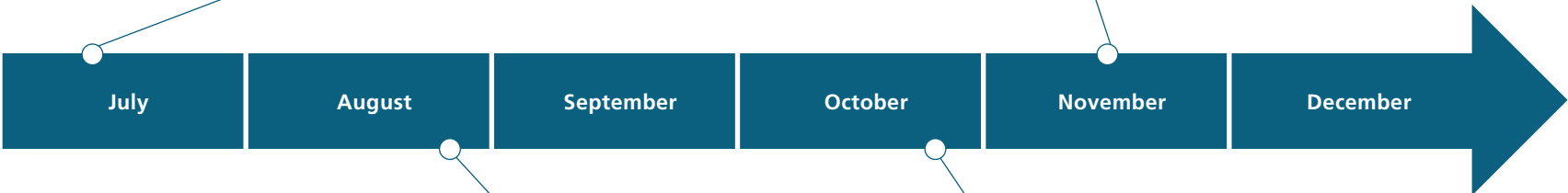
At its annual Investors' Day the CPH Group presents an update on the implementation of its long-term strategy with a particularly detailed insight into the Packaging Division, which is building a further coating plant in Brazil.



Zeochem begins construction of a new office building for its Louisville (USA) operation. The new facility will have a total floor area of 1 400 square metres and will accommodate the R&D, quality management, sales and administrative staff who currently work at various locations in the surrounding area.



Perlen Packaging's annual customer survey with the additional incentive of a tree being planted for every participant earns sizeable support. As a result, Perlen Packaging plants 500 oak trees in Hessen together with Planet Tree, a foundation pursuing sustainable long-term reforestation.



Zeochem invests in expanding its molecular sieve manufacturing capacities in the USA and in Bosnia and Herzegovina. The facilities concerned manufacture lithium molecular sieves for concentrating medical oxygen and Purmol powders, whose areas of application include insulating glass.



Schilliger Holz AG unveils plans for a wood-fibre insulation board manufacturing plant using Swiss wood at the Perlen site. The CPH Group leases out a 20 000-square-metre land plot for the project and undertakes to supply the facility with electricity, process steam and water and to process the plant's waste water in its own treatment works from 2023.



Zeochem invests in an additional production line to manufacture deuterated dimethyl sulfoxide (DMSO) at its Rütli site. DMSO extends the service life of the organic light-emitting diodes in OLED displays.

Higher net sales but steep rises in raw materials costs



Peter Schaub (left) and Peter Schildknecht

Dear shareholder, dear reader,

The CPH Group is active in three industrial business sectors that were affected by the coronavirus pandemic in 2021 in highly differing ways. The Packaging Division, which had reported record earnings for the previous year, saw more modest demand for its films from the pharmaceutical markets. The Chemistry Division, by contrast, posted a record earnings result for the year following a strong increase in demand for its molecular sieves as the global economy recovered. Demand for paper also picked up in 2021; but shortages of recovered paper prompted an unprecedented rise in the price of this key raw material and prevented the Paper Division from reporting a positive EBIT result.

CPH pursues a differentiation strategy in its Chemistry and Packaging divisions. Both divisions focus on developing high-value products and expanding their distribution, and each holds a strong global market position. The Chemistry Division is a leader in the production and supply of molecular sieves for concentrating oxygen, while the Packaging Division holds a similar lead position in providing high-barrier packaging films to the pharmaceutical industry. Both divisions have substantially expanded internationally over the past few years, and now maintain operations in Europe, Asia and the Americas. In putting its new coating plant in Brazil into operation in 2022, the Packaging Division will reach a milestone in its international expansion, and will then focus more strongly on further developing its product portfolio. The blister packs in

extensive use today feature both plastic and aluminium films which are difficult to separate in any recycling process. In view of this, the Packaging Division is working on developing halogen-free films and blister packs in which plastic is used for both the base and the lidding film.

The Paper Division pursues a volume-based strategy with the aim of ensuring its sustainable long-term cost leadership in the diminishing and correspondingly fiercely contested European paper market. Sizeable production capacities were withdrawn from this market in 2021, and supply and demand are currently broadly balanced. While this will prompt paper prices to rise in 2022, no medium-term easing of the general market pressures is presently in sight. In view of this, the CPH Group has reassessed the value of its fixed assets in this business segment, and has consequently effected a one-time CHF 150 million non-cash-relevant impairment to the assets at its Perlen paper production site. Despite this action, CPH's equity ratio remains sound at over 55%. The Paper Division also holds key competitive advantages which should help it further expand its market position in the longer term. Thanks to its advanced paper machines, the division's paper production is highly cost-efficient and almost carbon-neutral.

Global economy swift to recover

The rollout of COVID-19 vaccination programmes in the course of 2021 enabled the coronavirus pandemic to be stemmed to such an extent that economic and social life returned increasingly to normal in many parts of the world. The CPH Group consistently maintained its protection programmes for employees at its various operating

locations. The Perlen site was an early participant in a pilot periodic mass COVID testing project of Canton Lucerne, and subsequently opened a testing and vaccination centre for employees and their family members. Thanks to the actions taken, the CPH Group was able to maintain both its production and its supplier capabilities. The growing proportions of vaccinated individuals also spurred renewed economic activity worldwide. But the resulting catch-up effect following the economic slump of 2020 did lead to supply shortages in numerous sectors, especially for energy, transport and various raw materials. These also affected the CPH Group.

According to the International Monetary Fund (IMF), global economic growth in 2021 amounted to 5.9%. The highest growth rates were seen in India (9.0%) and China (8.1%), but the industrialized countries also achieved average growth rates of some 5%. The euro exchange rate against the Swiss franc had declined to CHF 1.0360 by year-end. While tangible progress has been made in reducing its impact, the euro rate remains significant for the CPH Group: some 55% of the Group's 2021 net sales were generated in the eurozone, while around 34% of its costs were incurred in Swiss francs.

CPH Group raises net sales in all three divisions

All three of the CPH Group's business divisions raised their net sales in 2021, most substantially the Chemistry Division with a year-on-year increase of 29.8%. The CPH Group as a whole raised its net sales 11.6% to CHF 496.7 million, and thus largely recouped the net sales decline seen in 2020. Excluding currency factors, group net sales were 12.6% above their prior-year level. The CPH Group made no major acquisitions in the year under review.

The Chemistry and Packaging divisions' shares of overall net sales were further increased, in line with group strategy. Chemistry and Packaging jointly accounted for 54% of the total, while Paper contributed 46%. The Group generated 66% of its net sales in Europe, its prime sales region.

Chemistry Division tangibly increases earnings

The catch-up effect had a positive impact on every product segment in the Chemistry Division, and demand was up for the molecular sieves used in the industrial, the energy and the pharmaceutical sectors. Production facilities were well utilized, and the division resolved to invest in expanding the capacities at its sites in the USA, China, Bosnia and Herzegovina and Switzerland. Net sales were raised 29.8% to CHF 95.1 million, and EBIT margin improved to a new record high of 16.1%.

High waste paper and low paper prices depress Paper results

Having declined more than 20% the previous year largely as a result of the coronavirus pandemic, the demand in Western Europe for press and printing papers remained broadly stable in 2021. Paper prices suffered further falls, however, and reached new lows. The Paper Division sold

Net sales in CHF million

496.7

(prior year: 445.2)

EBITDA in CHF million

25.7

(prior year: 55.2)

EBIT* in CHF million

-2.7

(prior year: 24.7)

Investments in CHF million

23.0

(prior year: 17.5)

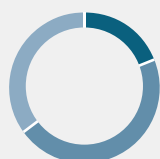
Equity ratio

55.4%

(prior year: 67.0%)

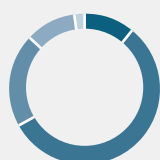
* before impairment

CPH Group net sales by division



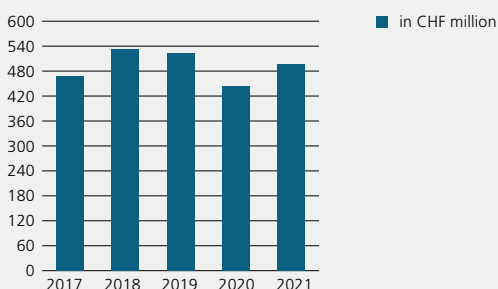
■ 19% Chemistry
■ 46% Paper
■ 35% Packaging

CPH Group net sales by region

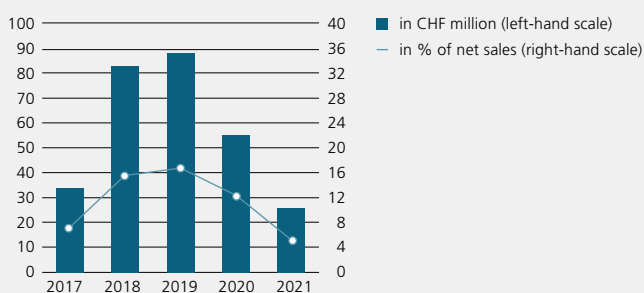


■ 11% Switzerland
■ 56% Rest of Europe
■ 20% The Americas
■ 11% Asia
■ 2% Rest of the world

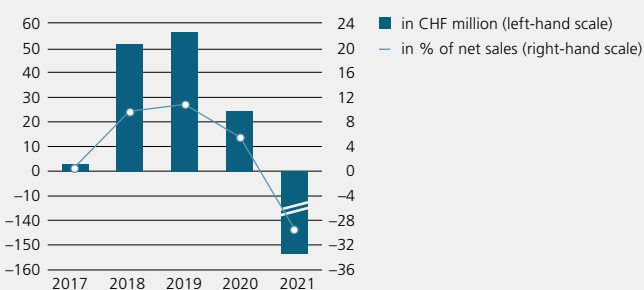
CPH Group net sales trends



CPH Group EBITDA trends



CPH Group EBIT trends



505 000 tonnes of paper in 2021, some 15.0% more than in the prior year, and further increased its market share. Net sales were raised 10.2% to CHF 230.9 million. Raw materials prices increased steeply in the course of the year. Waste paper in particular was in extremely short supply, and recovered paper prices reached historic new highs. The poor availability of such recovered paper prevented the division's paper machines from being fully utilized all year. Despite rigorous cost-saving measures and additional income from sales of carbon credits, EBIT for the year before impairments declined to CHF –24.9 million.

Packaging Division sees decline in European demand

With the protection measures taken in response to the coronavirus pandemic substantially reducing the transmission of other infections, too, the year brought declines in demand in Europe for over-the-counter medicines and thus also for blister films. The Packaging Division further increased the proportion of higher-value items in its product portfolio and also raised prices. As a result, despite lower sales volumes, net sales for 2021 were 5.1% up on the previous year at CHF 170.7 million. The division's strategic focus on emerging markets also reaped rewards, with double-digit growth rates recorded in Latin America and Asia. But steep rises in raw materials costs depressed the EBIT result, which declined from the CHF 21.6 million of 2020 to CHF 5.7 million.

Investments in expanding capacities

The CPH Group invested CHF 23.0 million in tangible fixed assets in 2021. Some of this investment was in further improving existing plant and processes, while some was spent on expanding capacities in the Chemistry and Packaging divisions. The CPH Group generated a cash flow of CHF 16.7 million and a free cash flow of CHF –3.4 million. The steep increases in the prices of certain raw materials such as recovered paper and plastics raised the cost of materials as a proportion of production-generated group sales from 48% to 62%. Personnel numbers totalled 1 104, a slight rise on the 1 098 of 2020.

One-time impairment depresses net result

The steep rises in raw materials costs negatively impacted EBITDA, which declined 53.4% to CHF 25.7 million. After ordinary depreciation and amortization of CHF 28.4 million, consolidated EBIT before impairment amounted to CHF –2.7 million. EBIT after one-time impairment amounted to CHF –152.7 million. The financial result was improved year-on-year to CHF –3.9 million. Non-operating income was generated of CHF 7.3 million, primarily through the sales of land not required for business operations. The net result after taxes amounted to CHF –151.4 million.

Proposed dividend of CHF 1.30 per share

The Board of Directors will recommend to the Ordinary General Meeting of 17 March 2022 that, in line with the company's consistent dividend policy, a dividend again be paid for the 2021 business year despite the negative net result, and that this dividend distribution should amount to CHF 1.30 per share.

Changes in Group Executive Management

Gerold Brüttsch assumes the function of CFO of the CPH Group on 1 January 2022. He succeeds Richard Unterhuber, who leaves the CPH Group after five years. We thank Richard Unterhuber for all his commitment and successes. Gerold Brüttsch was CFO of the Starrag Group for the past 20 years, and brings extensive experience in the financial management of an internationally active stock exchange-listed company to his new position.

Marc Haller takes over as Head of the Packaging Division on 1 April 2022. He succeeds Wolfgang Grimm, who is retiring after 24 years at the Perlen Packaging helm. Marc Haller was most recently General Manager of Sulzer Mixpac AG and its 1 100 personnel. We offer Wolfgang Grimm our sincere thanks for his many years of dedicated service and for his sizeable achievements in the successful further development of the Packaging Division.

A positive outlook for 2022

The IMF forecasts global economic growth of 4.4% for 2022. The CPH Group expects to achieve higher net sales in all three divisions. But concrete developments in each will be heavily influenced by the pandemic's further course and by the extent to which the higher raw materials prices can be passed on to the market. The present shortages of some raw materials such as recovered paper should ease over the next few months, and this should have a positive impact on costs. The Paper Division expects a sizeable improvement in profitability and a double-digit-million EBIT, while the Packaging Division also expects to report a much-improved operating result. Group EBIT and the net group result should both be in the mid-double-digit millions. Investments in tangible fixed assets of some CHF 50 million are planned which should both better align production capacities to rising demand and further enhance the efficiency of existing installations.

Sincere thanks

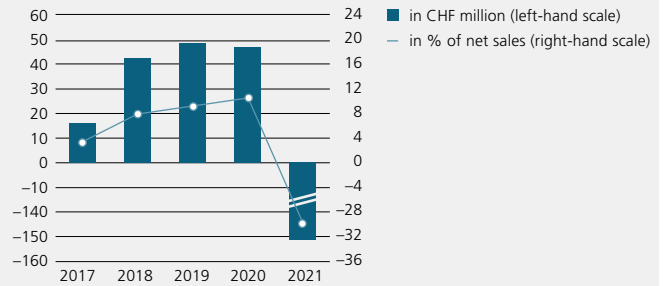
The CPH Group was the subject of a cyber attack in January 2022. Thanks to its employees' exceptional response, the Group was able to swiftly restore its IT systems with its own resources and external cybersecurity specialists and resume operations. We thank our employees for all their endeavours and our business partners for their loyalty to our company. And we thank you, our shareholders, for the confidence and trust that you continue to place in the people, the Executive Management and the Board of Directors of the CPH Group.



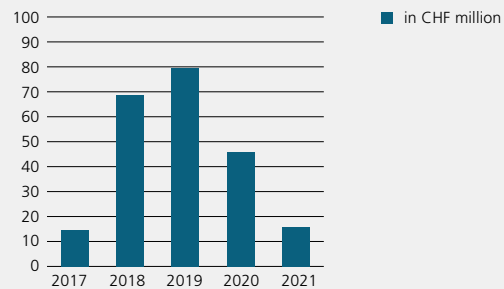
Peter Schaub
Chairman of the Board

Peter Schildknecht
Group CEO

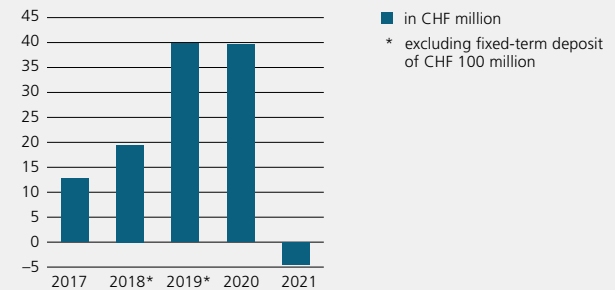
CPH Group net result trends



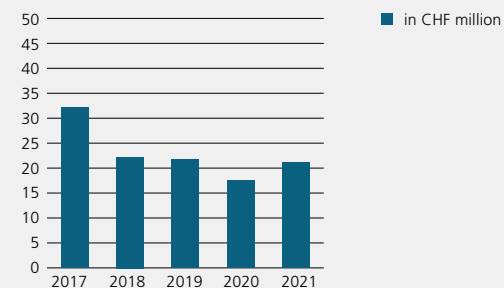
CPH Group cash flow trends



CPH Group free cash flow trends



CPH Group investments in tangible fixed assets



Vocational training

Ten professions

Nurturing the talents of tomorrow is a key priority within the CPH Group. Ten apprentices from operating sites in Switzerland and Germany report on their experiences during their vocational training.

Plant operator



Sharujan Uthayakumar: "My work involves unrolling and rolling the films, and I operate some of the machinery, too. What I like about the job is how varied it is. My uncle also worked here at Perlen Packaging, and he told me a lot about the company."

Commercial officer



Elisabeth Frick: "The great thing for me about my training is getting to know so many different departments and being challenged in constantly new ways. What I also appreciate about Perlen Packaging is that we always work in a team, that everyone's so helpful and that we have flexible working hours."

'Verdia' commercial officer



Jasmin Kaufmann: "What's special about the Verdia training is that you get to go to England for six months in your second apprenticeship year and do your C1 there. With its strong focus on English, it's a really useful training course if you want to work in an international company."

Logistics officer



Haris Ibrahimovic: "In the morning we process the orders and load the paper rolls, ensuring they're well placed on the trucks and rail wagons in weight and volume terms. The afternoons we may spend making space for further rolls. I've enjoyed working at Perlen Papier right from the start – especially because it's such a modern company."

Automation engineer



Jennifer Brügger: "I decided to become an automation engineer because I like working independently. It's all a matter of applying what you've learnt at vocational school in the practical work environment. And at the end of the day you can really see what you've accomplished."

Chemical lab technician



Jannis Dotz: "The chemical lab technician training provides a good foundation that you can build on. There are career opportunities within the lab; or it can serve as a basis for further studies. The challenges in my job are to be flexible, and to be willing to take on responsibilities."

Computer scientist



Timo Sarkar: "My day-to-day job is all about supporting other CPH Group employees around the world and maintaining our IT infrastructure. Given the current digital transformation, it's one that has very good career prospects. But it does mean you have to keep yourself constantly familiar with all the new technologies."

Paper technologist



Valeria Hegi: "My training is very diverse and covers so many aspects of paper production. By the end of it, I'll have gained a good insight into pretty much every department. This also lets you find out what you like doing most and then specialize in that."

Polymechanic



Markus Marty: "I came to Perlen Papier for my training because it teaches me not just production work but maintenance and servicing, too. I see my future career in mechanical engineering. And the training that I'm getting here gives me the ideal foundation for that."

Production mechanic



Yanick Ineichen: "Perlen Papier is unique, because it's Switzerland's only paper manufacturer. That's why I decided to do my vocational training here. As early as your second apprenticeship year they have you servicing motors and transmissions, and doing shutdown work, too."

Sales and earnings boosted by business realignment and renewed demand



Increased demand for the products of the Chemistry Division was reflected in a 29.8% rise in its net sales for the year, which totalled CHF 95.1 million. EBIT was more than tripled to CHF 15.3 million, and EBIT margin reached a new record high of 16.1%.

Strategy

The Chemistry Division is primarily active in the silicate chemistry segment, in which it is one of the world's top three market suppliers. Its comprehensive product portfolio extends to standard molecular sieves which are used to dry and purify gaseous substances in industrial facilities, to molecular sieve powders and special zeolites that adsorb humidity and odours in plastics and to high-value molecular sieves whose applications include concentrating oxygen for medical use ('medox'). Zeochem further manufactures chromatography gels for pharmaceutical separation processes and deuterated products that are used in analytical procedures, in pharmacy and in the manufacture of OLED screens. The products are made at four operating locations in the USA (high-value molecular sieves), China (standard molecular sieves), Bosnia and Herzegovina (molecular sieve powders, special zeolites and chromatography gels) and Switzerland (deuterated products), and are distributed all over the world.

In line with overall strategy, the Chemistry Division focuses on high-value products and aims to further expand its market position. To this end, targeted investments are now being made to increase capacities.

In addition to organic growth, acquisitions may also be effected to further grow the division's business.

Market environment

The Chemistry Division is active in an early-cycle market. As restrictions to counter the coronavirus pandemic eased, economic recovery began fairly swiftly, and with it came renewed demand for the division's products. While its lithium-based molecular sieves for concentrating oxygen had already been in high demand during the pandemic, orders for items in the division's further product segments also showed highly encouraging trends as 2021 progressed. Only in the energy sector did business remain modest in the first half of the year. But with steeply rising energy prices, deliveries of molecular sieves to the oil, gas and ethanol industries also picked up again in the second six months.

In the deuterated compounds product segment, the research laboratories which had been closed during the coronavirus pandemic began to replenish their supplies, while new OLED screen production facilities also commenced operations.

Business development

The economic upturn was felt in all the Chemistry Division's product segments. Order volumes were particularly high for its lithium-based medox molecular sieves. In response, the manufacturing capacities for this high-value product segment are now being expanded at the US operating site. The demand for molecular sieve powders rose substantially, too. These are used in today's multi-pane insulated glass windows, where they are integrated directly into the plastic spacers separating the panes to prevent internal misting. In view of the strong demand for these products, the division is investing in establishing a further calcination plant at its site in Bosnia and Herzegovina. With demand also continuing to rise for the deuterated products used in OLED manufacture, the division will also be setting up a further production facility at its Rütli site in Switzerland. The new facilities will come into operation in the course of 2022.

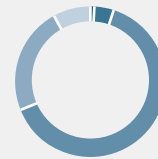
The Chemistry Division generated overall net sales of CHF 95.1 million in 2021, an increase of 29.8% on the previous year, or of 31.9% excluding currency factors. Production capacities were well utilized at all operating locations, and new order volumes were at encouraging levels. The raw materials required were generally adequately available; but the operation in China was affected in the second half of the year by increasing electricity shortages, and by associated production restrictions imposed by the Chinese authorities. The division invested a total of CHF 7.2 million in tangible fixed assets in 2021. Annual EBITDA was doubled to CHF 20.5 million, while EBIT was tripled to CHF 15.3 million. The resulting EBIT margin of 16.1% marked a record new high. The division employed 291 personnel at the end of 2021, compared to 277 a year before.

Outlook

The Chemistry Division expects demand for its products to remain strong in 2022. Some raw materials, and energy in particular, may still be in short supply. Transport capacities, too, are yet to return fully to their pre-pandemic levels, and will continue to pose a challenge in terms of both their costs and their availabilities when required.

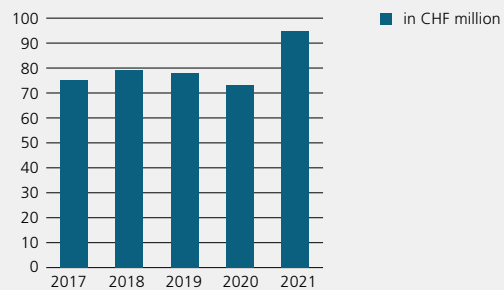
The division plans to invest CHF 19.5 million in tangible fixed assets in the course of the year. In addition to the capital spending outlined above, one molecular sieve production line should be automated at the Chinese operating site. The new office building in the USA will also be completed and occupied. Net sales for 2022 should show further year-on-year growth, though to a more modest degree. Higher raw materials and energy costs will impact on EBIT, however. As a result, the division expects to post a lower EBIT margin.

Chemistry net sales by region

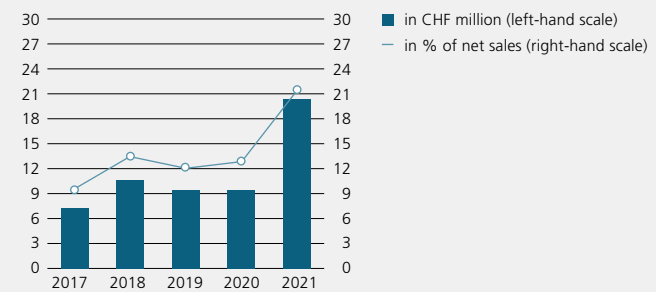


- 1% Switzerland
- 4% Rest of Europe
- 64% The Americas
- 23% Asia
- 8% Rest of the world

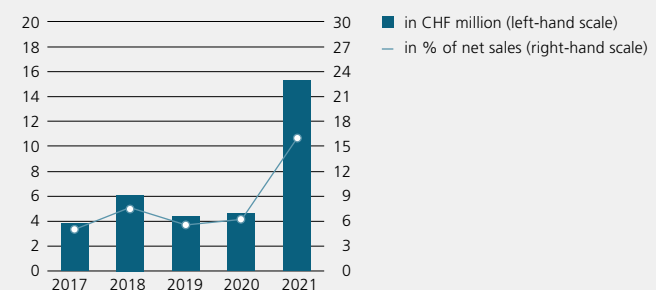
Chemistry net sales trends



Chemistry EBITDA trends



Chemistry EBIT trends





OLEDs: a rapidly growing market

Deuterated solvents extend the lifespan of OLED displays, which are being increasingly used in televisions, motor vehicles and mobile devices. So an additional distillation plant is now being built at CPH's Rüti (Switzerland) site.

It was back in the 1950s, at the Nancy-Université in France, that the electroluminescence of organic materials was discovered. Later, in 1987, researchers at Eastman Kodak laid the foundation for organic light-emitting diode (OLED) technologies. OLEDs hold numerous advantages over inorganic liquid crystal displays. They need no backlighting; and, unlike LCDs, they can display genuine black and thus present stronger colours. OLED displays require correspondingly less energy and generate less heat. They can also be applied in thinner layers than is possible with liquid crystal, and are additionally suitable for flexible and foldable displays.

The OLED has made remarkable market inroads over the past few years. Between mid-2020 and mid-2021, the proportion of new televisions featuring OLED screens rose from 25% to 40%. But the most popular use of OLED displays is in mobile devices such as smartphones, tablets and laptops. OLEDs are also being increasingly used in motor vehicles, for their lighting and their dashboard displays. The market for large OLED displays is now dominated by LG, while Samsung is the clear leader in the smaller-display segment. The market as a whole is expected to see further annual growth of some 13% over the next five years.

One critical factor with OLEDs is their useful service life: being organic, the materials used will age, and their luminescent properties will correspondingly decline. Thanks not least to the use of deuterated solvents in their manufacture, however, the latest generation of OLEDs boast service lives that are comparable with those of other technologies. To meet the growing demand, CPH's Chemistry Division is building a further deuterated dimethyl sulfoxide distillation plant at its Rüti site in Switzerland, which should come into operation in 2022.

Photo: An installation featuring convex and concave OLED screens at the IFA consumer electronics trade show in Berlin.

High recovered paper prices depress earnings results



The Paper Division raised its annual net sales 10.2% to CHF 230.9 million. But owing to steep rises in raw materials costs and a one-time impairment to its production plant, divisional EBIT for 2021 was negative at CHF –174.9 million.

Strategy

The European market for graphic printing paper has been undergoing radical structural change for over ten years now. Print newspapers are losing ground to digital platforms as a news medium. The trend is accompanied by consolidation within the media market. So not only are newspapers shrinking in print run and page volume terms: numerous titles have also been merged or have closed entirely. As a result, the demand for newsprint paper has been falling in Western Europe since 2008 by some 6–8% a year. The decline has also prompted adjustments to production capacities. But since such reductions take longer to effect, overcapacities have developed, and with them strong pricing pressures. This in turn has halved paper prices from their previous highs. With no medium-term easing of the present European market pressures in sight, the Paper Division has reassessed the value of its Perlen production plant and is making a non-cash-relevant one-time impairment of CHF 150 million to the assets concerned. In the present tough market environment, only those manufacturers with the lowest production costs will sustainably prevail over their competitors in the longer term. Perlen Papier is well positioned here. The company operates two advanced and very high-performance paper machines that give it a key competitive edge.

Perlen Papier is now Switzerland's only manufacturer of graphic printing paper. As such, it has also assumed a vital function as the last domestic waste paper recycler. Sustainability is a key differentiator for CPH's Paper Division: the carbon footprint of the paper produced at the Perlen site is only a quarter of the size of those of its European competitors. Since the beginning of 2021, customers have also been able to offset the remaining carbon dioxide emitted in their products' manufacture via a certificated reforestation project, thereby making their paper supplies wholly carbon-neutral. Several customers have already opted for this sustainable solution.

Market environment

The restrictions imposed in response to the coronavirus pandemic continued to depress demand for paper in the first half of 2021, which saw double-digit declines. But with growing vaccination of the population improving the situation and protection measures being correspondingly eased in various countries, the demand for paper began to revive, and most of the first-half declines were recouped over the second six months: demand for newsprint in Western Europe decreased 2.7% to 3.3 million tonnes for the year as a whole, while demand for coated magazine paper increased 1.3% to 2.6 million

tonnes. Around 1.5 million tonnes of paper production capacity were withdrawn from the market in the course of the year. Some graphic paper manufacturers have also announced plans to withdraw a further 0.5 million tonnes in 2022.

With substantially less paper manufactured during the coronavirus pandemic, less waste paper was also available for recycling use. The industry thus faced a shortage of recovered paper when demand for its products picked up again in the course of the year. The situation was exacerbated by demand from the cardboard packaging sector, which used both waste cardboard and waste paper as raw materials to provide sufficient volumes of packaging for the booming online sales segment. As a result, recovered paper prices rose to historically high levels, and waste paper supply lines were tested to the extreme. Steep rises were also seen in electricity and thermal energy prices.

Business development

The Paper Division sold 505 000 tonnes of printing paper in 2021, a 15.0% increase that partially recouped 2020's pandemic-related decline. Of this volume, 340 000 tonnes were of newsprint and 165 000 tonnes were magazine paper products. Price increases could also be effected in the second half of the year in view of the higher raw materials costs, and annual net sales were raised 10.2% to CHF 230.9 million. Excluding currency factors, the net sales increase amounted to 11.5%. Perlen Papier's shares of Western Europe's newsprint and magazine paper sales markets showed further slight year-on-year gains.

With supplies of the key raw material of recovered paper remaining tight throughout the year, the cost of materials was 58% above its prior-year level. Steep rises were also recorded in energy costs. The higher expenses incurred could only be partially passed on to the market, and further price increases will be unavoidable in 2022. The division also earned other operating income of CHF 22.1 million, largely through the sale of carbon credits. Despite additional optimizations and cost-saving measures, EBITDA for the year declined to CHF –8.0 million, and annual EBIT after a one-time impairment of CHF 150 million amounted to CHF –174.9 million. The division invested CHF 6.3 million in 2021 in maintaining its paper machines and further improving the efficiency of its production facilities. Personnel numbers declined from the 367 of 2020 to 357.

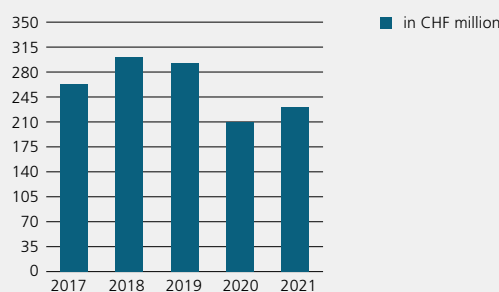
Outlook

The industry's associations expect the demand in Western Europe for wood-based graphic printing papers to suffer further high-single-digit-percentage declines in 2022. This in turn is likely to keep both overcapacities and consolidation pressures high. The Paper Division plans to invest CHF 21.6 million in further process enhancements over the course of the year. The higher paper prices should help raise net sales above their 2021 level. The situation on the recovered paper market should also return to normal. As a result, the division can expect to report a positive EBIT again for the year.

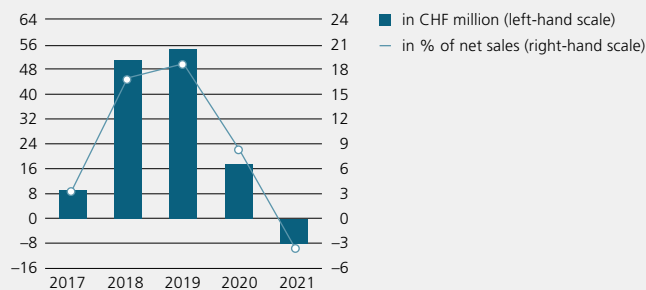
Paper net sales by region



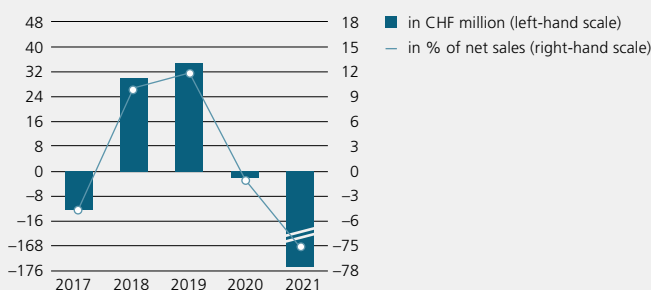
Paper net sales trends



Paper EBITDA trends



Paper EBIT trends





In die Ruh von Gestalt

25 Mio. P...
für L...

For a healthy climate

The Visana health insurance company is committed to ensuring a healthy environment. Which is why it uses Perlen Papier's climate-neutral paper for its customer magazine.

"Protecting our climate is a task we can all contribute to. That's why we use Perlen Papier's climate-neutral paper for our VisanaForum health magazine," says Stephan Fischer, editor-in-chief of Visana's customer publication. Visana is one of Switzerland's top ten health insurance companies.

VisanaForum is a quarterly publication with a circulation of 440 000 copies. The magazine is printed at Vogt-Schild Druck AG, which maintains ecofriendly printing processes, is entirely VOC-free in its production and substantially reduces its carbon dioxide emissions through the smart use of surplus heat and electricity-free cooling. "By adopting advanced production techniques and working closely with innovative partners like Perlen Papier, we can offer our customers print publications that are produced in a truly climate-friendly way," confirms Rolf Steiner, managing director of Vogt-Schild Druck.

Thanks to various actions that the company has taken, Perlen Papier's carbon footprint is some 75% smaller than those of its European competitors. Since the beginning of 2021, customers have also been able to offset the remaining carbon dioxide emissions generated by their paper's production in Perlen via a certificated reforestation project in Uruguay, thereby making their Perlen paper supplies entirely climate-neutral.

Photo (from left): Vogt-Schild Druck managing director Rolf Steiner, VisanaForum editor-in-chief Stephan Fischer and Perlen Papier area sales director Alfonso Scullo.

Market share further increased, but margins depressed by higher costs



A stronger business emphasis on higher-value products helped raise net sales for the Packaging Division 5.1% to CHF 170.7 million. But the steep rises in raw materials costs depressed EBIT margin, which declined to 3.3%.

Strategy

The Packaging Division has evolved over the past few years from a European film supplier into a global leader in providing thermoformable blister films for the pharmaceutical sector, and is one of the world's three biggest operators in this market today. The leading pharmaceutical corporations all maintain a global business presence and operate production facilities on multiple continents. To provide both them and local pharmaceutical companies with local packaging solutions, Perlen Packaging has consistently pursued a policy of international expansion over the past few years. Coating plants in Europe have been supplemented with slitting capacities in North and South America, a new production facility has been built in China, and the plant in Brazil will be expanded through the addition of a coating facility in 2022. In line with overall strategy, these developments give the Packaging Division a strong presence both globally and in the emerging pharmaceutical markets.

A further strategic thrust of the Packaging Division is its product focus on films with high barrier properties. The active ingredients in medicines are growing increasingly complex, and medicines are also distributed all over the globe in all climate zones. Both these trends

increase the need to protect them against outside elements such as moisture or oxygen. This in turn is prompting a growing use in blister packs for tablets and capsules of multi-layered films with high barrier credentials. Perlen Packaging offers a full range of PVC and PVdC films for the pharmaceutical industry, and is now the market leader for high-barrier films.

The most commonly used blister packs consist of two components: a coated plastic film with deep-drawn cavities to accommodate the medicine units, and an aluminium lidding film through which the medicine can be pushed for consumption. Being manufactured of differing materials (i.e. plastic and metal), these blister packs are more difficult to recycle than are all-plastic packagings. In view of this, Perlen Packaging is currently developing a mono-material blister pack that has no aluminium lidding and consists solely of PVC and PVdC films.

Perlen Packaging is taking a further step towards the circular economy by developing halogen-free alternatives to PVC-based films. The innovative BLISTair single-use dry powder inhaler remains in further development towards its market launch.

Market environment

After the steep increase in the demand for medicines witnessed the previous year as the coronavirus spread, 2021 saw the pandemic exert an opposite effect: with the adoption of protective measures such as mask-wearing and physical distancing, fewer viral infections such as flu and colds were transmitted, and the demand for medicines (and for over-the-counter products in particular) was significantly diminished. The trend was reflected in pharmacy sales: in Germany, for instance, these suffered double-digit declines. Corporate customers in the pharmaceutical sector still have substantial inventories, too. As a result of these factors, the European pharmaceutical market for thermoformable packagings shrank by around 7%. According to independent market forecasts, it could take a further two to three years for the pharma markets to return to their pre-pandemic levels.

Business development

The 5.1% increase in the division's net sales to CHF 170.7 million was attributable not to higher sales volumes but to price rises and an increase in the proportion of higher-value product sales. Excluding currency factors, net sales were raised 5.2%. Net sales for Europe were down year-on-year, but less substantially than the market in general, prompting market share to increase to 31%. No reliable market share data are available for the division's further sales regions. Double-digit sales growth in Latin America and Asia more than offset the European net sales decline. On the expenditure front, the steep rises in raw materials prices put pressure on margins. In addition to the cost of raw materials, substantial increases were also seen in energy and transport prices. The higher costs could only be passed on partially to the market, and only with some delay. EBITDA declined accordingly from the CHF 27.8 million of the previous year to CHF 11.9 million, and EBIT was reduced from CHF 21.6 million to CHF 5.7 million. Total investments in tangible fixed assets amounted to CHF 9.5 million. Personnel numbers were virtually unchanged at 449 employees.

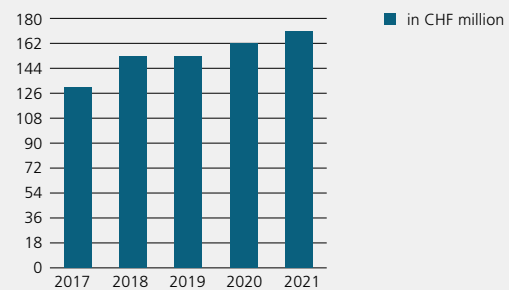
Outlook

According to market projections, the worldwide growth of the pharmaceutical sector looks set to slow to 2–5% a year by 2025. Except in the vaccine field, demand is unlikely to return to pre-coronavirus levels any time soon, because the stocks of various medicines accumulated in the boom year of 2020 will have to be used up first and because the populations in numerous countries have not yet returned to any day-to-day normality. The Packaging Division plans to invest CHF 8.0 million in tangible fixed assets in 2022, primarily in the new coating plant in Brazil, which should come into operation in mid-year. The division will again be seeking to achieve above-average growth, especially in Asia and Latin America, and expects its overall net sales for the year to be an improvement on 2021. With plans in place to pass raw materials costs on to the market, annual EBIT should also see an upturn once again.

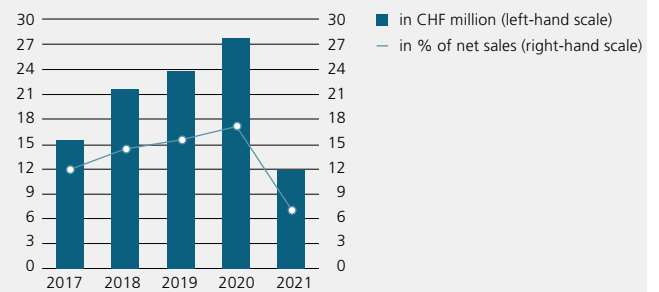
Packaging net sales by region



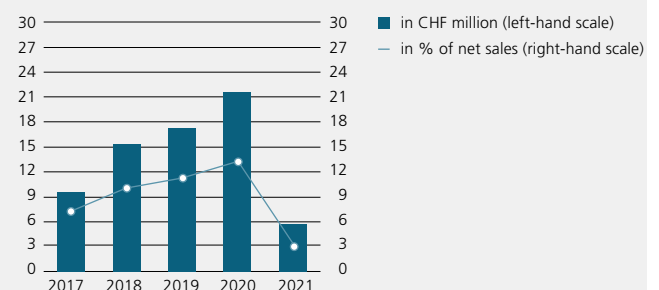
Packaging net sales trends



Packaging EBITDA trends



Packaging EBIT trends





A new coating plant in Brazil

Perlen Packaging's Anápolis site in Brazil is being developed from a slitting plant into a full production facility for high-barrier films, the division's third beside Switzerland and China. Despite coronavirus-related supply difficulties, the facility – which will be the most advanced in Latin America – should begin operations in mid-2022.



Latin America and Brazil in particular are rapidly growing pharmaceutical markets. The Packaging Division has maintained its own slitting plant in Anápolis since 2018, and has reported double-digit growth rates since then for its Latin American business. In 2020 the CPH Group Board of Directors resolved to expand the existing Anápolis operation by installing a new coating plant. To date, the coated films used in the slitting facility have had to be imported from the Group's Swiss and Chinese production facilities. Having a coating plant on-site will allow local and regional customers to be more promptly and more flexibly supplied.

"The logistics have been demanding all the way," explains Cristiano Bueno, Managing Director of Perlen Packaging Anápolis Indústria e Comércio Ltda. "First we had the numerous restrictions imposed by the coronavirus pandemic; then we suffered shortages of the components needed to construct the new facility; and now it's the limited transport capacities that are posing a particular challenge." The 46-metre-long coating plant is being shipped to Brazil in some 40 containers.

The preparations in Anápolis were in full swing throughout 2021. The laboratory, the warehouse and offices were completed, and additional space was rented in the building to accommodate the new coating plant over a 4 000-square-metre area. "With our new Anápolis facility we are completing our expansion of Perlen Packaging into a global manufacturer of high-barrier films for the pharmaceutical industry, and are providing ourselves with the most advanced coating plant in Latin America," concludes Wolfgang Grimm, Head of the Packaging Division.

Photo: The workforce at the Anápolis site will further expand with the entry into operation of the new coating facility.

Corporate Governance report

Responsible corporate management and control in the interests of its customers, employees, shareholders and further interest groups are the foundation of the CPH Group's ability to sustainably create value through its business activities.

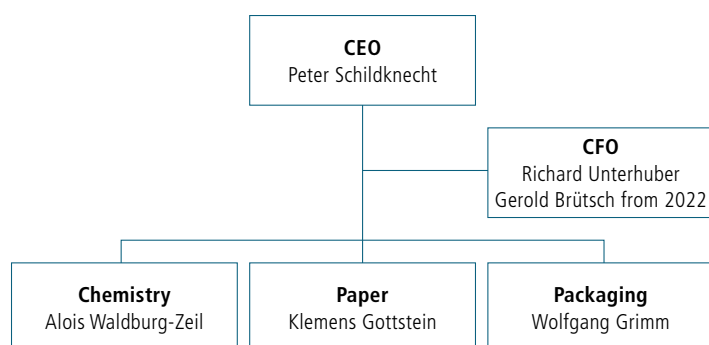
The CPH Group is active internationally in various markets and countries, and abides by all the applicable laws and regulations. Impeccable business management, high ethical standards and responsible corporate governance are essential to its long-term success. The following section is structured in accordance with the corporate governance guidelines of the SIX Swiss Exchange. The CPH Group also aligns itself and its activities to the principles of the Swiss Code of Best Practice for Corporate Governance of Economiesuisse, and applies these in a manner which is commensurate with its size and structure. For some items, reference is made to the consolidated financial statements from Page 52, and in particular to the additional corporate governance information provided in the notes to the consolidated financial statements from Page 56. This section is based on the Articles of Incorporation and the Organizational Regulations of CPH Chemie+Papier Holding AG and the codes of conduct of the Group's constituent divisions, which are available for download at <https://cph.ch/en/investors/documentation/> under 'Articles of incorporation, regulations and descriptions of duties'.

1 Group structure and shareholders

1.1 Group structure

The CPH Group comprises the three business divisions of Chemistry, Paper and Packaging, which each act autonomously in their specific markets. The parent company CPH Chemie+Papier Holding AG is domiciled in Perlen/Root, Switzerland. A list of the subsidiaries included in the consolidated financial statements will be found in the notes thereto on Page 80. The CPH Group is headed by the Group CEO, while the divisions are headed by the Divisional CEOs. Group Executive Management consists of the Group CEO, the Group CFO and the Divisional CEOs.

Organization chart as of 31.12.2021



CPH Chemie+Papier Holding AG is the only stock exchange-listed company of those consolidated. Its registered shares (securities number 162471, ISIN CH0001624714) are listed on the SIX Swiss Exchange. Market capitalization details and further share information are provided in Item 9.2 'Information for shareholders' on Page 35.

1.2 Significant shareholders

Two significant shareholdings were newly disclosed in 2021 in compliance with Article 120 of the 'FinfraG' Financial Market Infrastructure Act. Previous such disclosures may be viewed on the SIX Exchange Regulation website (<https://www.ser-ag.com/en/resources/notifications-market-participants/significant-shareholders.html#/>).

Shareholder structure (in %)	31.12.2021	31.12.2020
Uetikon Industrieholding AG		50.0
Swiss Industrial Finance AG*	14.8	1.5
Ella Schnorf-Schmid estate*	18.8	7.2
J. Safra Sarasin Investmentfonds AG	5.0	5.0
Members of the Board of Directors and Group Executive Management (and related parties)	4.7	1.8
Publicly held shares	51.9	30.4
Shares currently not listed in the Share Register	4.8	4.1
Total shareholders	935	916

* linked through a shareholders' agreement

CPH Chemie+Papier Holding AG acquired Uetikon Industrieholding AG through a merger by absorption under a corresponding agreement of 11 June 2021. The descendants of the Schnorf founding families, who had held shares in Uetikon Industrieholding AG, thereby received commensurate direct shareholdings in CPH Chemie+Papier Holding AG. The two anchor shareholders – the Ella Schnorf-Schmid estate and Swiss Industrial Finance AG – have concluded a shareholders' agreement to ensure a stable shareholder base and jointly hold 33.6% of CPH Chemie+Papier Holding AG shares. Behind Swiss Industrial Finance AG is the family branch of Board Chairman Peter Schaub. Peter Schaub, Tim Talaat and Manuel Werder represent the interests of the descendants of the founding families on the Board of Directors. Their direct shareholdings in CPH Chemie+Papier Holding AG are shown in Note 30.2.1, 'Shares held by members of the Board of Directors and Group Executive Management' in the notes to the consolidated financial statements, Page 77.

1.3 Cross-shareholdings

CPH Chemie+Papier Holding AG has no cross-shareholdings with any other company of more than 5%, in capital or voting rights form.

1.4 Significant changes to the Articles of Incorporation

Share capital was reduced from CHF 12 million to CHF 1.2 million and the threshold for placing General Meeting agenda items was lowered to 0.5% of share capital in the 2020 financial year. The Articles of Incorporation underwent no further changes in 2019, 2020 or 2021.

2 Capital structure

2.1 Capital

As specified in Article 3 of the company's Articles of Incorporation, the fully-paid-up share capital of CPH Chemie+Papier Holding AG amounts to CHF 1.2 million. It consists of 6 000 000 registered shares each of CHF 0.20 nominal value (see also Note 30.1, 'Capital structure' in the notes to the consolidated financial statements, Page 76).

2.2 Authorized and conditional capital

The CPH Group had no authorized or conditional capital as of 31 December 2021.

2.3 Changes in capital in the last three years

In the 2020 financial year the nominal value of the CPH Chemie+Papier Holding AG share was reduced from CHF 2.00 to CHF 0.20, with the reduction amount distributed to shareholders. This action reduced share capital from CHF 12 million to CHF 1.2 million (see Note 30.1, 'Capital structure' in the notes to the consolidated financial statements, Page 76). There were no changes in capital in the 2019 or the 2021 financial years.

2.4 Shares and participation certificates

Every voting registered share entered in the company's Share Register entitles its owner to one vote at the General Meeting. There are no transfer or voting right restrictions, except for those specified in Item 2.6 below. No participation certificates have been issued.

2.5 Dividend-right certificates

No dividend-right certificates have been issued.

2.6 Limitations on transferability

Acquirers of registered shares are entered into the Share Register by the Board of Directors as shareholders with voting rights at the shareholder's request. The Board of Directors may refuse such entry, however, if the shareholder does not expressly declare that the shares concerned have been acquired in their own name and at their own expense, or if they make any false statement. No further restrictions on share transferability are stipulated in the Articles of Incorporation.

2.7 Convertible bonds and options

The CPH Group has no convertible bonds outstanding and has issued no options to any persons within or outside the Group.

3 Board of Directors

3.1 Members of the Board of Directors

The Board of Directors of CPH Chemie+Papier Holding AG comprises at least three members. No Board member is currently active with the company in an executive capacity or has been so in the last three years. As of 31 December 2021, the Board of Directors comprised six members. Dr. Mauro Gabella did not stand for re-election at the

Ordinary General Meeting of 18 March 2021. The Meeting elected Dr. Claudine Mollenkopf in his stead.

Board member since	Function	Finance & Auditing Committee	Personnel & Compensation Committee
Peter Schaub	Chairman since 2010	Member	Member
Tim Talaat	Deputy Chmn since 2015		Chair since 2020
Kaspar W. Kelterborn	2015	Member	Chair since 2015
Claudine Mollenkopf	2021	Member	Member
Manuel Werder	2015	Member	Member
Christian Wipf	2008	Member	Member

3.2 Professional background and other activities and functions

Peter Schaub

Peter Schaub, lic. iur., attorney-at-law, born in 1960 and a Swiss national, has been Chairman of the Board of Directors since 2010. He has been a partner at Weber Schaub & Partner AG, tax and legal consultants, Zurich since 1994. Peter Schaub is Chairman of the Board of Directors of Scobag Privatbank AG, Basel, Chairman of the Board of Directors of Zindel Immo Holding AG, Chur, Chairman of the Board of Directors of Mobimo AG, Lucerne, Chairman of the Board of Directors of Swiss Industrial Finance AG, Zurich, Deputy Chairman of the Board of Directors of UBV Holding AG, Uetikon and a member of the Board of Directors of Rüegg Cheminée Holding AG, Zumikon. He serves as a member of the boards of directors of various further unlisted companies and as a trustee of various foundations.

He served as a tax commissioner at the Cantonal Tax Office, Zurich from 1990 to 1993 and as a junior associate at the Schellenberg Wittmer law firm, Zurich from 1987 to 1988.

Tim Talaat

Tim Talaat, MSEE and MBA, born in 1960 and a Swiss national, has been Deputy Chairman of the Board of Directors since 2015 and Chair of its Personnel & Compensation Committee since 2020. He is the majority shareholder and Chairman of the Board of Directors of Swiss Industrial Holding AG, Uetikon, Chairman of the Advisory Board of Single Holding GmbH, Hochdorf (Germany) and a member of the Board of Directors of Bachofen AG, Uster.

He served as CEO of Looser Holding AG, Arbon from 2009 to 2015, as Managing Partner at Swiss Industrial Finance AG, Pfäffikon SZ from 2007 to 2009, as CEO of SR Technics Switzerland from 2003 to 2007 and as a member of the SR Technics Group Executive Board, Zurich Airport from 1996 to 2003.



The Board of Directors as of 31 December 2021 (from left): Tim Talaat, Christian Wipf, Peter Schaub, Kaspar W. Kelterborn, Claudine Mollenkopf and Manuel Werder.

Kaspar W. Kelterborn

Kaspar W. Kelterborn, lic. oec. HSG, born in 1964 and a Swiss national, has been Chair of the Finance & Auditing Committee since 2015. He is a member of the Board of Directors of Suhner Holding AG, Brugg, a member of the Board of Directors of RUAG International Holding AG, Bern, a member of the Board of Directors of Wipf Holding AG, Brugg and a member of the Board of Directors of Valyo AG, Baden.

He served as CFO and a member of the Executive Committee of the Conzzeta Group, Zurich from 2006 to 2021 and as CFO and a member of the Executive Management of the Unaxis Group, Pfäffikon from 2002 to 2005, and held various leading executive functions in finance and controlling both in and outside Switzerland for the Clariant Group, Muttenz from 1996 to 2002.

Claudine Mollenkopf

Claudine Mollenkopf, Dr. rer. nat., born in 1966 and a German and French dual national, has been Senior Vice President and General Manager Silica at Evonik Operations GmbH, Essen since 2019.

She served as a member of the Executive Committee of Orion Engineered Carbons S.A., Luxembourg from 2011 to 2019 and as President of Orion Engineered Carbons France SAS, Berre l'Étang from 2018 to 2019; and she held various executive positions in the Evonik Group, most latterly General Manager Business Line Rubber/MRG Industries, between 1996 and 2010.

Manuel Werder

Manuel Werder, lic. iur. and LL.M., attorney-at-law, born in 1974 and a Swiss national, has been a partner at the Niederer Kraft Frey AG law firm in Zurich since 2015. He further serves as a member of the Board of Directors of UBV Holding AG, Uetikon, on the boards of directors of various further unlisted companies and as a trustee of several foundations.

He was a senior associate at Niederer Kraft Frey AG, Zurich from 2010 to 2015, served a secondment to Allende & Brea Abogados, Buenos Aires from 2007 to 2008, was an associate at Niederer Kraft Frey AG, Zurich from 2004 to 2007 and was a foreign associate at Fox Horan & Camerini LLP, New York from 2002 to 2004.

Christian Wipf

Christian Wipf, lic. oec. HSG, born in 1957 and a Swiss national, is Chairman and Delegate of the Board of Directors of Wipf Holding AG, Brugg and chairman of the boards of directors of various subsidiaries within the Wipf Group.

He served as CEO of the Wipf Group, Brugg from 1997 to 2020, as CEO of Wipf AG, Volketswil from 2001 to 2007 and as a member of Executive Management at Seetal Schaller AG, Brugg from 1991 to 1997, and held various executive functions at Philips AG, Zurich and at Philips Electronics Ltd, Montreal between 1982 and 1991.

3.3 Statutory provisions regarding the number of activities permitted under VegüV Article 12, Paragraph 1, Section 1

Under Article 21 of the Articles of Incorporation of CPH Chemie+Papier Holding AG, members of the Board of Directors may hold up to 15 additional mandates, but no more than three such mandates may be at stock exchange-listed companies. Such calculations do not include:

- mandates at legal entities which control or are controlled by the company;
- mandates at associations, foundations or staff welfare institutions, of which every Board member may hold up to five;
- mandates at joint ventures in which the company is involved but which it does not control, of which every Board member may hold up to five.

A mandate is regarded as any activity performed by a member of the Board of Directors in the top management or administrative bodies of legal entities that are obliged to enter themselves in the Commercial Register (or a corresponding register abroad) and that neither control nor are controlled by the company. Mandates at multiple legal entities which are under common control are regarded as one single mandate. No member of the Board of Directors holds more than the maximum number of external mandates specified in the Articles of Incorporation.

3.4 Election and term of office

The dates of first election of the individual Board members are stated in 3.1 above. In accordance with Article 13 of the Articles of Incorporation of CPH Chemie+Papier Holding AG, Board members are elected individually by the Ordinary General Meeting to serve for a one-year period. They may be re-elected. A Board member's mandate will end at the latest at the Ordinary General Meeting of the year in which their 70th birthday falls.

3.5 Internal organizational structure

The organization of the Board of Directors of CPH Chemie+Papier Holding AG is based on the law, the company's Articles of Incorporation and its Organizational Regulations. The last two of these may be viewed (in German) on the CPH website at <https://cph.ch/en/investors/documentation/> (under "Articles of incorporation, regulations and descriptions of duties").

The Board of Directors meets as often as business demands, and at least five times a year. The Board is quorate as long as a majority of its members are present. Resolutions are passed by a simple majority of the votes cast. The Chairman also has a vote, and has a further casting vote in the event of a tie. The Board met eight times in 2021, for four full-day sessions, three half-day sessions and a two-day strategy meeting. Attendance was either in person or by video conference, in view of the coronavirus pandemic. All meetings were fully attended.

The Board's strategy meeting is devoted to strategic issues and the medium-term development of the CPH Group and its divisions. The meeting is also attended by the entire Group Executive Management and – for specific topics – members of the Divisional Management teams.

The Chairman of the Board or their deputy convenes board meetings, chairs the discussions and ensures that appropriate minutes are kept thereof. The Chairman also represents the Board towards outside parties. The Chairman is the immediate superior of the Group CEO. Apart from the above, the Chairman has no special powers or authorities unless these are individually delegated to them by the Board or the urgency of a situation requires an immediate decision to be made.

The Board of Directors has created two permanent committees: Finance & Auditing and Personnel & Compensation. These committees each consist of at least three non-executive members of the Board of Directors. The members of the Finance & Auditing Committee meet at least three times a year, while the members of the Personnel & Compensation Committee meet at least twice a year. The committees take no decisions themselves: they primarily perform a preparatory and advisory function, helping the full Board in particular to conduct its meetings more efficiently and to take swift and well-founded decisions.

The Finance & Auditing Committee

The Finance & Auditing Committee consists of Kaspar W. Kelterborn (chair), Peter Schaub and Manuel Werder. The Group CEO and CFO also attend all committee meetings as permanent guests. The committee's tasks comprise in particular:

- evaluating the Group's financing and accounting systems in terms of their appropriateness, reliability and effectiveness
- examining the annual and half-yearly accounts and financial statements and other financial information intended for publication, and determining their guidelines, quality standards and content
- monitoring the assessment of corporate risks and the Group's risk management practices
- monitoring the Group's investment and hedging policies
- monitoring the Group's Internal Control System and the effectiveness thereof
- monitoring the Group's business activities in terms of their observance and implementation of board resolutions, company policy principles and directives and the relevant legal provisions, particularly those relating to stock exchange law
- assessing the work, performance, independence and remuneration of the external group and statutory auditors and making recommendations on the election of the same to the Board of Directors and the General Meeting, approving the auditing plan, processing audit reports and overseeing the adoption of the external auditors' recommendations
- monitoring the Group's real-estate strategy.

The committee met for three half-day deliberations and conducted one telephone conference in 2021. All meetings were fully attended.

The Personnel & Compensation Committee

The Personnel & Compensation Committee comprises Tim Talaat (chair), Claudine Mollenkopf, Peter Schaub (except for matters regarding his own compensation) and Christian Wipf. The Group CEO also attends all committee meetings as a permanent guest, unless his own compensation or other topics relating to him are being discussed. The committee's tasks comprise in particular:

- devising guidelines for the CPH Group's compensation and benefit policy (in particular the compensation principles for the Board and Group Executive Management) on behalf of the Board of Directors
- submitting proposals for the compensation of the Board of Directors to the full Board
- assessing the performance of the Group CEO and the further members of Group Executive Management and their achievement of their annual targets, and submitting corresponding proposals for the fixed and variable compensation of the same to the full Board of Directors
- monitoring the implementation of the CPH Group's personnel and compensation policies along with groupwide salary developments
- making recommendations to the full Board of Directors on elections to its ranks and the appointment of a new Group CEO and/or further members of Group Executive Management, and on their terms and conditions of employment.

The committee met for three half-day deliberations in 2021. All meetings were fully attended.

3.6 Definition of areas of responsibility

In accordance with Article 716a of the Swiss Code of Obligations, the Board of Directors has certain non-transferrable and inalienable duties. The authorities of and the collaborations between the Board of Directors, its committees and Group Executive Management are laid down in the Organizational Regulations, which will be found (in German) at <https://cph.ch/en/investors/documentation/> under 'Articles of incorporation, regulations and descriptions of duties'.

The Board of Directors has the following group-level duties:

- to determine the Guiding Principles and general corporate policy
- to determine the group structure, group policy, group objectives and general group strategy and define the strategic growth areas
- to formulate targets for operational key performance indicators, financing policy and investment returns
- to assign resources and decide on the use of funds within the Group
- to appoint the boards of directors of subsidiary companies
- to approve strategic collaboration agreements concluded by group member companies among themselves or with other companies
- to decide on entry into or withdrawal from key business segments
- to appoint and dismiss members of Group Executive Management

- to exercise supervisory authority over the group's management, particularly with regard to the observance of laws, the Articles of Incorporation, regulations and directives and the adoption of actions resolved
- to determine the remuneration principles for and the remuneration of the members of Group Executive Management
- to assess the risk management system and business risks.

For the business divisions, the Board of Directors has the following duties:

- to determine divisional objectives and divisional strategies
- to decide on the establishment or closure of operating sites and branch business operations.

The Chairman of the Board is in regular contact with the Group CEO to support them in their performance of their duties and their implementation of business strategy. The Board of Directors supervises Group Executive Management through structured reporting and controlling processes. The Board receives a comprehensive monthly written report on current business trends, financial results, market developments, emerging risks and other key events. The Group CEO also reports on the latest business trends and performance and all further issues of relevance to the Group at every Board meeting.

Risk management

Being internationally active, the CPH Group is exposed to various financial and non-financial risks that are inseparably linked with its business activities. These risks are defined in the broadest sense as the danger that financial, operational or strategic objectives may not be achieved as planned. To ensure the Group's long-term success, therefore, it is essential to effectively identify such risks, to analyze them and to eliminate or reduce them through appropriate steering and management actions.

Assessment of significant risks at the end of 2021

The significant risks identified for the CPH Group as of the end of 2021 included the COVID-19 pandemic and its impact on sales markets and demand, the changes to economic growth, political and economic uncertainties, Swiss franc/euro currency trends and paper price developments. Actions have been defined to reduce these and other risks, and such actions are being taken in close coordination with the strategic objectives of the Group and its three divisions.

Financial risk management (see table on Page 31)

By virtue of its business activities, the CPH Group is particularly exposed to financial risks such as currency risks, credit risks, liquidity risks and interest rate risks. Its overarching risk management is focused on the unforeseeability of developments on the financial markets, and is geared to minimizing any potential negative impact thereof on the Group's financial health. Risk management is performed by the Group's Finance Department, in accordance with the guidelines

approved by the Board of Directors. These specify the use of derivatives and the handling of currency risks, interest rate risks and credit risks. The Board's guidelines are binding for all group member companies. The table below provides an overview of the financial risks, together with their description and their management.

Risk management organization

Financial and operational risk management are conducted within the Group in accordance with the principles and the guidelines laid down by the Board of Directors and Group Executive Management. The group and statutory auditors support the Board of Directors and its Finance & Auditing Committee by verifying the existence of the Group's internal control system (ICS) in the course of their performance of their legal mandate.

Risk management principles

The Group's risk management principles guide the regular assessment of operational and strategic business risks, the hedging of currency, interest rate, credit and liquidity risks and the internal control system (ICS). Guidelines have also been established for the management of liquid funds and for loan procurement activities.

Risk overview

The regularly identified and analyzed risks are summarized in an annual Risk Report which is submitted to the Board of Directors. The significant business risks are also defined in a detailed risk catalogue and a risk matrix, and are assessed in terms of their likelihood of occurrence and the scope of the damage they could cause. Insurance coverage is also annually appraised.

Reporting

The Group's risk management is reported on annually. Strategic and operational risks are recorded. Any extraordinary incidents are reported immediately to the Board of Directors. In the Board's opinion, with the risk management established, the actions required have been taken to ensure the CPH Group's future development, although the possibility can never be excluded of unforeseen risks arising as a result of special circumstances or uncertainties.

Financial risks overview

Risk	Description	Management
Currency risks	Being internationally active, the CPH Group is subject to currency risks that can impact on operating and financial results and on group equity. The euro and the US dollar are the Group's main foreign currencies.	<ul style="list-style-type: none"> – Wherever possible, the payment flows within the Group's divisions are naturally hedged by procuring goods in the same currency in which products are sold. – Currency risks are reduced through the use of derivative financial instruments. – Foreign currency risks relating to the book values of the net assets of subsidiaries outside Switzerland or to translations of the results of such subsidiaries are not currently hedged.
Interest rate risks	Interest rate risks may arise through changes to future interest payments as a result of fluctuations in market interest rates and through interest-related risks arising from changes in market value.	<ul style="list-style-type: none"> – The CPH Group has no significant variable-interest assets or liabilities that would be substantially impacted by major changes in the interest rate environment.
Credit risks from business operations and financial transactions	Credit risks consist in the possibility of suffering financial loss should a customer or counterparty fail to fulfil their contractual obligations. Credit risks may derive from receivables, financial investments, credit balances with financial institutions, securities held and/or derivative financial instruments.	<ul style="list-style-type: none"> – Regular monitoring of independent ratings of financial institutions. – Further reduction of any risks to liquid funds by ensuring that the funds concerned are maintained not at a single bank but at various financial institutions. – Reducing cluster risks for receivables and financial assets by maintaining a broad geographical spread and large numbers of customers. – Monitoring the creditworthiness of customers through past experience and specific checks.
Liquidity risk	A liquidity risk derives from the possibility of being unable to meet financial obligations when these become due for payment.	<ul style="list-style-type: none"> – Prudent liquidity management includes retaining adequate reserves of liquid funds and permanently monitoring these, and maintaining credit line options.



Group Executive Management as of 31 December 2021 (from left): Richard Unterhuber, Wolfgang Grimm, Peter Schildknecht, Klemens Gottstein and Alois Waldburg-Zeil. (Not pictured: Gerold Brüttsch.)

4 Group Executive Management

4.1 Members of Group Executive Management

As of 31 December 2021 Group Executive Management comprised:

Name	Function	Held since
Dr. Peter Schildknecht	Group CEO	2009
Richard Unterhuber	Group CFO	2016–2021
Gerold Brüttsch	Group CFO	from 2022
Dr. Alois Waldburg-Zeil	Head of Chemistry	2010
Klemens Gottstein	Head of Paper	2012
Wolfgang Grimm	Head of Packaging	2003

4.2 Professional background and other activities and functions

Peter Schildknecht

Peter Schildknecht, Dr. sc. techn., born in 1962 and a Swiss national, joined CPH in 2008 and has been Group CEO since 2009. He is a member of the Board of Directors of Renergia Zentralschweiz AG, Root, a member of the Board of Directors of Kowema AG, Rotkreuz, a member of the Board of Directors of Buss AG, Pratteln and Deputy Chairman of the Board of the Central Switzerland Chamber of Industry & Commerce (IHZ), Lucerne.

From 2001 to 2007 he was a member of Group Executive Management of Sarna Kunststoff Holding AG, Sarnen and led various group

divisions, most latterly Sarnafil. From 1995 to 2001 he held various functions in the Von Roll Group, including CEO of Von Roll Betec AG and Head of Industrial Services and serving as a member of Executive Management at Von Roll Infratec Holding AG, Bern.

Richard Unterhuber

Richard Unterhuber, holder of an FH Diploma in Business Administration, Certified Management Accountant and MBA, born in 1967 and a Swiss and Italian national, served as Group CFO from joining CPH in 2016 to 31 December 2021.

From 2006 to 2016 he served as CFO and a member of Group Executive Management at the internationally active Multi-Contact AG industrial group, Allschwil. Prior to this he had held executive finance and controlling positions at various further industrial companies: he was Head of Shared Services and CFO of SCA Packaging Switzerland AG, Oftringen from 2001 to 2006, Chief Commercial Officer and a member of Executive Management at Sarnatech (Schweiz) AG, Triengen from 1998 to 2001, Business Controller at DCL Data Center Luzern AG, Lucerne from 1997 to 1998 and Head of Controlling at Swiss Post Aarau from 1995 to 1997.

Gerold Brüttsch

Gerold Brüttsch, B.Sc. in Business Administration, Swiss Certified Accountant and US Certified Public Accountant, born in 1966 and a Swiss national, has been a member of Group Executive Management since autumn 2021 and takes over as Group CFO on 1 January 2022.

He served as Group CFO, Deputy CEO and Head of the Corporate Center of Starrag Group Holding AG, Rorschacherberg between 2000 and 2021. Prior to this he was CFO in charge of finance, controlling, IT and administration at Müller Martini Bookbinding Systems, Felben-Wellhausen from 1997 to 1999; and he served as an audit and consulting manager with KPMG in Zurich and San Francisco from 1990 to 1997.

Alois Waldburg-Zeil

Alois Waldburg-Zeil, Dr. iur., born in 1963 and an Austrian national, joined the CPH Group as Head of Chemistry in 2010. He is a member of the Board of Directors of Canexis Pharma AG, Schlattingen.

Between 1997 and 2009 he held various management functions with the Süd-Chemie Group (which is now part of Clariant), including Head of the General Secretariat and Public Relations, Sales Manager EMEA, Global Financial Manager for Süd-Chemie Performance Packaging in Paris (France), CEO of Süd-Chemie UK in Manchester (UK) and CEO of Süd-Chemie Zeolites GmbH in Bitterfeld (Germany). Prior to this he served as an auditor with KPMG from 1993 to 1997.

Klemens Gottstein

Klemens Gottstein, industrial engineer, paper manufacturer and MBA, born in 1961 and a German national, joined the CPH Group as Head of Paper in 2012. He is also a member of the Board of EURO-GRAPH, the European Association of Graphic Paper Producers, Brussels.

Between 1989 and 2011 he held various functions at the Myllykoski Group including HR Director, General Manager of the Dachau and Ettringen works and Director of Business Development for Coated Papers. Most latterly he served as Executive Vice President Operations and a member of the Executive Management of Myllykoski Europe, with responsibility for its six European plants and Human Resources Europe.

Wolfgang Grimm

Wolfgang Grimm, the holder of a Diploma in Business Administration, born in 1957 and a German national, joined the then Perlen Group as its Managing Director Packaging in 1998, and has been serving in his present position as the CPH Group's Head of Packaging since 2003.

From 1995 to 1998 he served with Schüpbach AG, Burgdorf (Switzerland), most latterly as Vice President Sales Central Europe for Danisco Flexible Schüpbach AG; and from 1993 to 1995 he was Sales Director of VAW Europack Export GmbH, Teningen (Germany).

4.3 Statutory provisions regarding the number of activities permitted under VegüV Article 12, Paragraph 1, Section 1

Under Article 21 of the Articles of Incorporation of CPH Chemie+Papier Holding AG, members of Group Executive Management may hold up to five additional mandates, but no more than one such mandate at a stock exchange-listed company. Such calculations do not include:

- mandates at legal entities which control or are controlled by the company;
- mandates at associations, foundations or staff welfare institutions, of which every Group Executive Management member may hold up to five;
- mandates at joint ventures in which the company is involved but which it does not control, of which every Group Executive Management member may hold up to five.

A mandate is regarded as any activity performed by a member of Group Executive Management in the top management or administrative bodies of legal entities that are obliged to enter themselves in the Commercial Register (or a corresponding register abroad) and that neither control nor are controlled by the company. Mandates at multiple legal entities which are under common control are regarded as one single mandate. No member of Group Executive Management holds more than the maximum number of external mandates specified in the Articles of Incorporation.

4.4 Management contracts

No management contracts have been concluded with companies or natural persons outside the CPH Group.

5 Compensation, shareholdings and loans

The compensation and shareholdings of the members of the Board of Directors and Group Executive Management, and the responsibilities and procedures for determining these, are specified in the Remuneration Report from Page 37 onwards.

6 Shareholders' rights

6.1 Voting right restrictions and representation

Every CPH Chemie+Papier Holding AG registered share entitles its holder to one vote at the General Meeting. There are no voting right restrictions.

In accordance with Article 9 of the Articles of Incorporation, any shareholder may be represented at a General Meeting by means of a written proxy issued either to another person or to the independent shareholders' representative. The company's shareholders may provide the independent shareholders' representative with their proxy for any General Meeting, either in writing or via the Sherpany platform (www.sherpany.com).

6.2 Voting procedures

Unless otherwise required by law, the General Meeting passes its resolutions and conducts its elections by a majority of the votes cast. Abstentions, voting ballots submitted blank and invalid votes are not counted in the corresponding calculations. In accordance with Article 12 of the Articles of Incorporation, all such votes and elections are open, unless the meeting chair or any other attendee demands a secret ballot.

6.3 Convocation of the General Meeting

In accordance with Article 10 of the Articles of Incorporation, a General Meeting is convened by written letter to the shareholders or by announcement in the Schweizerisches Handelsamtsblatt (Swiss Official Gazette of Commerce). This invitation must be extended at least 20 days in advance of the meeting. The invitation will include the meeting agenda and the proposals and recommendations of the Board of Directors and of any shareholders who have demanded the convocation of a General Meeting or have submitted an agenda item (as permitted under Article 699, Paragraph 3 of the Swiss Code of Obligations).

6.4 Submission of agenda items

In accordance with Article 4 of the Articles of Incorporation, any request by a shareholder for an item to be included on a General Meeting agenda must be submitted to the Board of Directors in writing at least 60 days in advance of the meeting concerned. Subject to the special provisions relating to General Meetings at which all shareholders are represented in full, no resolution may be passed by a General Meeting on any matter which has not been communicated in this way.

6.5 Entry in the Share Register

In accordance with Article 9 of the Articles of Incorporation, all shareholders entitled to attend a General Meeting and exercise their share voting rights thereat must have been duly entered in the Share Register in advance of the General Meeting concerned by a cutoff date specified by the Board of Directors.

7 Change of control and defence measures

7.1 Obligation to make an offer

In accordance with Article 6 of the Articles of Incorporation, any acquirer of CPH shares whose total shareholding thereby exceeds a legally prescribed ownership threshold is not obliged to make a public takeover offer as specified in the Swiss Financial Market Infrastructure Act ('opting-out' clause).

7.2 Change-of-control clauses

There are no change-of-control clauses.

8 Auditors

8.1 Duration of mandate and term of office of the auditor in charge

PricewaterhouseCoopers AG, Zurich, has been the statutory and group auditor of the CPH Group since 1971. Thomas Illi has been the auditor in charge since 2016. In accordance with Article 730a, Paragraph 2 of the Swiss Code of Obligations, a new auditor in charge is designated every seven years.

8.2 Auditing and other fees

The following auditing and other fees were paid in the 2020 and 2021 financial years:

in CHF thousand	2021	2020
Auditing fees to PricewaterhouseCoopers AG	372	393
Auditing fees to further audit companies	40	44
Other fees to PricewaterhouseCoopers AG	60	80
Other fees to further audit companies	56	25
Total	528	542

Auditing fees are the amounts paid for the auditing services which are provided each year to give an opinion on the consolidated financial statements and to compile reports on the financial statements of group member companies required under applicable local law. Other fees are the amounts paid to audit companies for other services.

8.3 Information instruments pertaining to the external audit

The work, performance, independence and remuneration of the external auditors are assessed by the Finance & Auditing Committee, which approves the audit plan, processes the audit reports and oversees the adoption of the external auditors' recommendations.

The Finance & Auditing Committee submits an annual report on these activities to the full Board of Directors. In 2021 representatives of the auditors attended all the meetings of the Finance & Auditing Committee for those agenda items which concerned them.

9 Information policy

9.1 Information tools

The CPH Group maintains an open communications culture towards its employees, its shareholders and the public. The Group publishes an Annual Report as of 31 December and a Half-Year Report as of 30 June. The printed Annual Report is sent directly to all shareholders. Copies can also be ordered at <https://cph.ch/en/investors/documentation/> on the CPH website.

The official organ of publication for the CPH Group is the Schweizerisches Handelsamtsblatt (the Swiss Official Gazette of Commerce). Written company communications to shareholders as required by law are sent to the most recent address provided in the Share Register for the shareholder or their proxy for such communications.

The 'Investors' section of the CPH website at <https://cph.ch/en/investors/> offers full information for shareholders and investors such as the calendar of coming financial events, key company figures and the current CPH share price. Contact details are also provided in the form of the info@cph.ch email address, via which further information about the CPH Group can be obtained. Interested parties can also register on the website at <https://cph.ch/en/investors/ir-contacts> to automatically receive CPH Group email communications. All the company's ad-hoc announcements are made immediately available at <https://cph.ch/en/media/ad-hoc-announcements-pursuant-to-art-53-lr/> and all further

media releases issued are provided at <https://cph.ch/en/media/media-releases/> upon their publication. An analysts' and media conference is also held for the publication of the Group's annual results.

Information on the CPH Group's three business divisions will be found on their individual zeochem.com, perlen.ch and perlenpackaging.com websites. The companies of the CPH Group also maintain their own LinkedIn social media profiles at:

- [linkedin.com/company/cph-chemie-papier-holding-ag/](https://www.linkedin.com/company/cph-chemie-papier-holding-ag/)
- [linkedin.com/company/zeochemllc/](https://www.linkedin.com/company/zeochemllc/)
- [linkedin.com/company/perlen-papier-ag/](https://www.linkedin.com/company/perlen-papier-ag/)
- [linkedin.com/company/perlen-packaging/](https://www.linkedin.com/company/perlen-packaging/)

9.2 Information for shareholders

The CPH share, which is listed on the SIX Swiss Exchange, closed at a price of CHF 61.00 on 30 December 2021, compared to CHF 72.60 at the end of the previous year. At –16.0%, the performance of the CPH share in 2021 was below that of the market in general, where the Swiss Performance Index Price (SPIX) rose 20.2%.

Share information

Listed on	SIX Swiss Exchange
Securities number	162 471
ISIN	CH0001624714
Reuters symbol	CPH.S
SIX symbol	CPHN

The CPH share price 2017–2021

Compared to the SPIX in CHF



Per-share statistics	2021	2020	2019	2018	2017
Share price on 31 December in CHF	61.00	72.60	79.20	82.50	53.55
High in CHF	75.40	80.80	88.50	89.00	57.30
Low in CHF	58.20	57.00	74.00	54.00	39.00
Nominal value in CHF	0.20	0.20	2.00	2.00	5.00
Key figures per share ¹⁾					
Equity in CHF	51.52	78.46	73.56	67.87	66.06
Price-to-book ratio on 31 December	1.18	0.92	1.08	1.22	0.81
Net result in CHF	–25.26	7.82	8.06	7.05	2.66
Price/earnings ratio on 31 December	–2.41	9.29	9.83	11.70	20.10
Cash flow in CHF	2.78	7.64	13.33	11.50	2.41
Free cash flow in CHF	–0.56	6.61	23.32	–13.42	2.14
Adjusted free cash flow in CHF ²⁾	–0.56	6.61	6.66	3.25	2.14
Distribution in CHF ³⁾	1.30	1.80	1.80	1.80	0.65
Market capitalization					
Number of shares	6 000 000	6 000 000	6 000 000	6 000 000	6 000 000
Share capital in CHF million	1.2	1.2	12	12	30
Market capitalization in CHF million	366	436	475	495	321

¹⁾ Based on consolidated financial statements and excluding minorities

²⁾ Excluding (for 2018 and 2019) CHF 100 million fixed-term deposit of funds generated by bond issue of 12.10.2018, repaid 9.7.2019

³⁾ For 2021: recommendation

9.3 Information for bondholders

CPH had a CHF 100 million corporate bond with a coupon of 2.00% and a maturity in October 2023 outstanding at the end of 2021. The bond, which is listed on the SIX Swiss Exchange, closed at CHF 101.91 on 29 December 2021, compared to CHF 103.00 at the end of the previous year.

Bond information	CPH 18–23
Issued by	CPH Chemie + Papier Holding AG
Listed on	SIX Swiss Exchange
Securities number	43467836
ISIN	CH0434678360
SIX symbol	CPH18
Trading currency	CHF
Nominal volume	CHF 100 million
Issue price	100.00
Coupon	2.00%
Denomination	CHF 5 000
Annual coupon payment	12 October
Issue date	12 October 2018
Maturity	12 October 2023
Redeemable	No
Credit rating by rating agency	None

9.4 Investor relations agenda

12 January 2022	Baader Helvea Swiss Equities Conference
22 February 2022	Publication of the 2021 Annual Report; media conference and investors' meeting
17 March 2022	Ordinary General Meeting
21 July 2022	2022 Half-Year Report
13 September 2022	CPH Group Investors' Day
3/4 November 2022	ZKB Swiss Equity Conference
21 February 2023	Publication of the 2022 Annual Report; media conference and investors' meeting
14 March 2023	Ordinary General Meeting

9.5 Investor relations contact

Gerold Brüttsch, CFO
CPH Chemie + Papier Holding AG
CH-6035 Perlen
Phone: +41 41 455 8000
Email: investor.relations@cph.ch

10 General blackout periods

Members of the CPH Board of Directors and Group Executive Management and all CPH employees and external parties involved in the compilation and publication of the annual and half-year accounts and financial statements may not trade any securities whose value is significantly determined by developments in the CPH share price from 1 December at the latest and from 1 June at the latest before and until 48 hours after the publication of the financial results concerned. Special blackout periods may be additionally imposed for particular projects. The provisions of the 'Regulations concerning disclosure of management transactions and prohibition of insider trading', which are available (in German) for download on the CPH website at <https://cph.ch/en/investors/documentation/> under 'Articles of Incorporation, regulations and descriptions of duties', shall also apply.

Remuneration report

The remuneration report provides details of the principles, programmes and procedures for determining the remuneration paid to the CPH Board of Directors and to Group Executive Management and their amounts in 2021.

This report is divided into two sections. Section 1 is not subject to the auditing required under Article 13 of Switzerland's VegüV Ordinance against Excessive Compensation in Stock Exchange Listed Companies, whereas Section 2 is.

1 Remuneration and general information

The CPH Group is an attractive employer with a workforce of well-qualified and high-performing individuals who are remunerated in line with market levels. CPH regards such remuneration as a combination of a fixed and a variable salary component. The amount of each individual's overall remuneration and the components thereof are determined by regularly reappraising the current classification of each function, benchmarking the remunerations awarded and comparing these to market rates (see also the details for the Board of Directors and Group Executive Management). Any modifications proposed to the remuneration for the Group CEO or further members of Group Executive Management are submitted for approval to the full Board of Directors by its Personnel & Compensation Committee, with due reference to the market comparisons conducted.

Every meeting of the Personnel & Compensation Committee is preceded by an agenda that is communicated to each Board member. The Committee also informs the other Board members at the next Board meeting of the topics it has discussed and the background to any proposals or recommendations submitted.

The Personnel & Compensation Committee generally meets three times (and at least twice) a year. Three meetings were held in 2021.

The members of the Personnel & Compensation Committee are elected individually by the Ordinary General Meeting to serve for one year. For further details of the Committee's current composition and prime duties and responsibilities, please see the Corporate Governance section.

Individual performance influences the compensation paid to all CPH Group personnel, including management members. The assessment thereof is based on the degree to which broader and individual targets are achieved, and such achievement is remunerated via a variable salary component or short-term incentive (STI). For each function, a target variable compensation is defined that will be paid if the targets concerned are achieved in full. The actual variable compensation to

be paid will be based on the degrees to which such targets are achieved, with the maximum annual variable compensation payable amounting to 150% of the target set. The gradations between the lower and upper limits of 0% and 150% may be linear or stepped: the details are determined under the annual target-setting process. For 2021, linear gradations were adopted for all the personnel concerned.

The Group CEO has a contractual notice period of 12 months, while the further members of Group Executive Management have a notice period of six months. There are no contractual agreements regarding severance payments. CPH maintains occupational pension arrangements for all its employees. There are no additional insurance arrangements for Group Executive Management members. The members of the Board of Directors are not insured under any CPH occupational pension scheme. The CPH remuneration system remained unchanged in 2021 from the previous year.

The structure and amounts of the remuneration paid for certain functions are reappraised using external benchmarks every two to three years. The remuneration paid to the members of Group Executive Management and the three Divisional Managements was most recently analyzed by an outside company in 2019. Three benchmark groups were created to this end. Group I consisted of Swiss-based international companies in the paper, packaging and chemistry sectors (such as Acino, Dottikon, Ems-Chemie, Givaudan, Baumgartner and Vifor). Group II added further international industrial companies domiciled in Switzerland (such as Feintool, Lantal Textiles, Huber+Suhner, Stäubli, Landis&Gyr and Schaffner). Group III comprised international subsidiaries (including those of companies in Groups I and II) based in China, Germany, the USA and other countries. About two-thirds of the companies in these three benchmark groups were stock exchange-listed. The functions assessed were assigned to the appropriate benchmark group(s) using the recruitment market principle.

The proposals on the maximum aggregate remuneration for the Board of Directors and for Group Executive Management are prepared by the Board's Personnel & Compensation Committee, appraised by the full Board and submitted to the General Meeting for approval. Should the proposal be rejected, the Board may submit a new proposal. Should it do so and should this also be rejected, an Extraordinary General Meeting should be convened within three months, or the Board may submit a further such proposal for retrospective approval at the next Ordinary General Meeting.

Long-term incentive (LTI) programme

The Articles of Incorporation of CPH Chemie+Papier Holding AG permit the use of long-term incentives (LTIs), particularly in the form of employee share ownership plans.

An employee share ownership plan exclusive to Group Executive Management members was introduced in 2020 in the form of a

restricted stock plan. The shares concerned are bindingly assigned to their beneficiaries at the time they are awarded, but are subject to a three-year vesting period. During this period the shares concerned are not subject to any further performance or results criteria, and their value varies solely on the basis of the corresponding stockmarket prices.

The award price of such shares is the arithmetic mean of the closing prices of the CPH Chemie + Papier Holding AG share for the 15 consecutive calendar days immediately before and immediately after the publication of the annual results for the business year concerned.

The number of shares awarded to each Group Executive Management member is based on their individual LTI target amount. Such shares are only awarded provided the individual concerned has not served or been served notice at the time of such award.

The shares required for such awards are acquired by CPH Chemie + Papier Holding AG each year on the equities market. The shares are awarded in annual tranches, immediately after their award price has been determined following publication of the corresponding annual results. Such shares carry both voting and dividend rights from the date of their award.

The shares of each annual tranche are entirely at their holder's disposal after the conclusion of their three-year vesting period.

Remuneration of the Board of Directors

The remuneration paid to members of the Board of Directors consists of a fixed monetary amount. Members' work on either of the Board's two technical committees is additionally remunerated via meeting attendance fees. Board members are further awarded a flat daily allowance for any work beyond their normal meeting activities.

The remuneration paid to Board members is determined on the basis of comparisons with published data for comparable Swiss industrial companies whose shares are also listed on the SIX Swiss Exchange. The remuneration rates concerned are proposed to the full Board by its Personnel & Compensation Committee.

In accordance with Switzerland's VegüV Ordinance against Excessive Compensation in Stock Exchange Listed Companies and the correspondingly amended Articles of Incorporation of CPH Chemie + Papier Holding AG, the maximum aggregate amount payable to the Board of Directors in the period between two Ordinary General Meetings is subject to the approval of the first such Meeting. This provision entered into effect from the 2015 Ordinary General Meeting.

For specific remuneration payments, please see Section 2 below.

Remuneration of Group Executive Management

The remuneration awarded to the members of CPH's Group Executive Management consists of a fixed and a variable (short-term incentive or STI) component which are both paid in full in monetary form. Since 2020, Group Executive Management members have additionally received further remuneration in the form of company shares under a long-term incentive or LTI programme. The STI variable remuneration paid depends on the degree to which group targets and individual divisional or functional targets are achieved. The maximum variable remuneration amounts to 100% of the fixed basic remuneration for the Group CEO and 50% thereof for the further Group Executive Management members.

The assessment of the performance of the members of Group Executive Management for variable remuneration purposes is based on a specific target-setting process. These targets are set in five areas: financial results, customers & market, innovation, processes and leadership & personnel. The financial results targets are the same for all Group Executive Management members, while individual divisional and/or functional targets are set in the four further areas.

The achievement of the quantitative targets set for the financial key performance indicators of EBIT, operating cash flow and net working capital accounts for 60% of the variable remuneration, with the remaining 40% based on the achievement of the quantitative and qualitative targets set in the other four areas. The Heads of Divisions' performance in financial results terms is based two-thirds on the results of their division and one-third on Group results. The corresponding performances of the Group CEO and CFO are based solely on the Group results achieved.

The targets for all target areas are prescribed by the Board of Directors for all Group Executive Management members (with the financial results targets derived directly from agreed budget parameters). The Group CEO and the further members of Group Executive Management may make target proposals, and the Group CEO may make proposals for the remuneration of the further Group Executive Management members. The latter have their achievement of their annual targets assessed by the Group CEO, who submits their resulting recommendations to the Board's Personnel & Compensation Committee, while the Group CEO's performance is assessed by the Chairman of the Board. All such assessments are discussed by the Personnel & Compensation Committee, which then submits a report to the full Board on the degrees to which each member of Group Executive Management has achieved the targets set, together with recommendations on the individual variable remunerations to be paid. The final decision thereon is then taken by the Board in toto, with due regard to the maxima specified by the previous Ordinary General Meeting.

Every Group Executive Management member receives the fringe benefit of a company car.

Since the 2015 Ordinary General Meeting, in accordance with Switzerland's VegüV ordinance and the correspondingly amended Articles of Incorporation of CPH Chemie+Papier Holding AG, the maximum aggregate fixed and variable remuneration payable to Group Executive Management have been approved by each Ordinary General Meeting for the following business year.

Any new members of Group Executive Management who are appointed and assume their duties after the Ordinary General Meeting has approved the maximum aggregate Group Executive Management remuneration for the business year concerned may – under Article 22 of the Articles of Incorporation of CPH Chemie+Papier Holding AG – be paid an additional amount totalling (for all such new members) no more than 40% of this maximum aggregate amount.

The remuneration paid in 2021 to the members of the Board of Directors, the Group CEO (who received the highest total remuneration

of any Group Executive Management member) and the further members of Group Executive Management is shown in the tables in Section 2.

2 Remuneration paid to members of the Board of Directors and Group Executive Management

This remuneration includes salaries, bonuses, credits, social security payments and occupational pension scheme contributions.

Notes on the remuneration paid to members of the Board of Directors

The amounts shown are the remuneration paid for the year concerned, regardless of when such payment was made. All such remuneration is in monetary form. Board members are not subject to any share ownership or share option plans. The remuneration is shown in gross form, including employees' social security contributions. The social security contributions shown separately include those of the employer.

Remuneration paid to members of the Board of Directors

2021 in CHF thousand

Board member	Member since	Function	Finance & Auditing Committee	Personnel & Compensation Committee	Fixed remuneration	Board committee meeting fees	Social security contributions	Total
Peter Schaub	1994	Chairman	Member	Member	319	0	19	338
Tim Talaat	1994	Deputy Chairman		Chair	91	24	7	122
Mauro Gabella*	2005	Member		Member	23	3	1	27
Kaspar W. Kelterborn	2015	Member	Chair		91	24	7	122
Claudine Mollenkopf*	2021	Member		Member	64	5	0	69
Manuel Werder	2015	Member	Member		91	8	6	105
Christian Wipf	2008	Member		Member	91	8	6	105
Total					770	72	46	888

* Mauro Gabella left the Board and Claudine Mollenkopf was newly elected thereto at the 2021 Ordinary General Meeting.

A maximum aggregate remuneration of CHF 930 000 was approved for the period between the 2021 and 2022 Ordinary General Meetings by the 2021 Meeting. Any differences to 2020 are attributable to the higher social security contributions required by law in 2021 and to roundings to the nearest thousand.

2020 in CHF thousand

Board member	Member since	Function	Finance & Auditing Committee	Personnel & Compensation Committee	Fixed remuneration	Board committee meeting fees	Social security contributions	Total
Peter Schaub	1994	Chairman	Member	Member	319	0	20	339
Tim Talaat	1994	Deputy Chairman		Chair	91	27	7	125
Mauro Gabella	2005	Member		Member	89	8	4	101
Kaspar W. Kelterborn	2015	Member	Chair		91	24	7	122
Manuel Werder	2015	Member	Member		91	8	6	105
Christian Wipf	2008	Member		Member	91	10	7	108
Total					772	77	51	900

No remuneration was paid to any former Board members. No loans were made to any current or former Board members, and no such loans are outstanding.

With the exception of the items and amounts shown under Note 30.2, 'Transactions with related parties and companies' on Page 76 of the notes to the consolidated financial statements, no remuneration was paid to any parties related to any Board members. No loans were made to any such parties, and no such loans are outstanding. No transactions were conducted on non-market terms with any natural persons or legal entities related to any Board members.

Notes on the remuneration paid to members of Group Executive Management

The variable remuneration shown for 2021 corresponds to the provisions made (on an accrual basis). The variable remuneration shown for 2020 has been adjusted to reflect the payments actually made. This is not new remuneration, but the same remuneration as was shown in the 2020 Annual Report. That remuneration could only be shown on the basis of the provisions made (on an accrual basis), however, whereas the table below shows the final amounts actually paid for 2020.

All such remuneration, both fixed and variable, is in monetary form. Since 2020, Group Executive Management members have also been subject to a share ownership plan (see Page 37). The remuneration is shown in gross form, including employees' company pension scheme and social security contributions. The company pension scheme and social security contributions shown separately include those of the employer. 'Further remuneration' relates to the private use of the company car and any long-service awards.

No remuneration was paid to any former Group Executive Management members. No loans were made to any current or former Group Executive Management members, and no such loans are outstanding.

No remuneration was paid and no loans were made to any parties related to any Group Executive Management members, and no such loans are outstanding. No transactions were conducted on non-market terms with any natural persons or legal entities related to any Group Executive Management members.

Remuneration paid to members of Group Executive Management

2021 in CHF thousand

Group Executive Management member	Function	Fixed remuneration	Variable remuneration (STI)	LTI share-based remuneration	Pension scheme and social security contributions	Further remuneration	Total
Peter Schildknecht	CEO	520	275	60	178	8	1 041
Further GEM members combined		1 333	360	120	347	61	2 221
Total		1 853	635	180	525	69	3 262

A maximum aggregate remuneration of CHF 3 500 000 was approved for the 2021 business year by the 2020 Ordinary General Meeting. The members of Group Executive Management were assigned a total of 2 682 shares (based on a share price of CHF 66.80) in 2021 under their share-based remuneration.

2020 in CHF thousand

Group Executive Management member	Function	Fixed remuneration	Variable remuneration (STI)	LTI share-based remuneration	Pension scheme and social security contributions	Further remuneration	Total
Peter Schildknecht	CEO	520	375	60	165	4	1 124
Further GEM members combined		1 200	370	120	324	55	2 069
Total		1 720	745	180	489	59	3 193

The members of Group Executive Management were assigned a total of 2 381 shares (based on a share price of CHF 75.75) in 2020 under their share-based remuneration.

Report of the statutory auditor on the remuneration report

We have audited the remuneration report of CPH Chemie+Papier Holding AG for the year ended 31 December 2021. The audit was limited to the information according to articles 14–16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in chapter 2 on pages 39 to 40 of the remuneration report.

Board of Directors' responsibility

The Board of Directors is responsible for the preparation and overall fair presentation of the remuneration report in accordance with Swiss law and the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance). The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

Auditor's responsibility

Our responsibility is to express an opinion on the remuneration report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report complies with Swiss law and articles 14–16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the remuneration report with regard to compensation, loans and credits in accordance with articles 14–16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the remuneration report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the remuneration report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the remuneration report of CPH Chemie+Papier Holding AG for the year ended 31 December 2021 complies with Swiss law and articles 14–16 of the Ordinance.

PricewaterhouseCoopers AG



Thomas Illi
Audit expert
Auditor in charge



Josef Stadelmann
Audit expert

Zürich, 11 February 2022

Sustainability report

The CPH Group aligns all its business activities to the criteria of economic, ecological and social sustainability, and makes an indispensable contribution to the circular economy.

1 Strategy

The long-term success of the CPH Group is based on sustainable value creation. The Group's 2019–2024 corporate strategy rests on three key pillars: further developing Chemistry and Packaging, expanding in growth regions and enlarging capacities outside Switzerland. Further details of this strategy will be found on the CPH website at <https://cph.ch/en/the-cph-group/strategy>. The Group's sustainability strategy supplements its corporate strategy, and is a key foundation of its more than 200 years of business success.

In its sustainable value creation, the CPH Group distinguishes between the economic, the ecological and the social dimensions, which are described in Sections 2, 3 and 4 below. The needs of the Group's various stakeholder groups are identified within its divisions under its integrated quality management system. Goals, actions and priorities are then defined in its sustainability strategy at the quality, safety, environmental and energy levels.

The CPH Group is committed to continuous long-term development. The Group offers high-quality products and services that are designed to improve people's quality of life. Its employees ensure that CPH remains both innovative and competitive in its various target markets, and their safety, their health and their further training and development are all key priorities. Avoiding and reducing emissions, waste water and solid waste has been integrated into the planning within each business division for several years now. And safety, environmental and quality issues are all entrusted to specially trained employees who report directly to their Divisional Management.

Paper, the biggest business division, is a pure recycling company that processes recovered paper into new printing and publication paper. The Paper Division is Switzerland's biggest waste paper recycler, transforming several hundred thousand tonnes of waste paper that is collected predominantly within the country and around a hundred thousand tonnes of waste wood from sawmill and forest thinning operations into these new paper products. In doing so, the CPH Group makes a substantial contribution to saving wood resources, while also ensuring shorter journeys for the waste paper concerned and thereby reducing carbon dioxide (CO₂) emissions.

For several years now, the CPH Group has been voluntarily setting itself targets for reducing its CO₂ emissions that go beyond the levels legally required. According to the Ten Toes Model of the CEPI European paper industry association, the carbon footprint of Perlen Papier is around a quarter of the size of those of its European competitors. 2021 also saw the Paper Division become the world's first paper producer to offer customers the option of fully offsetting the carbon emissions generated in the manufacture of their product, via a certificated reforestation project in Uruguay.

The Perlen operating site has extensive expertise in the industrial processing of wood-based materials. To further expand this competence centre, the CPH Group has entered into a collaboration with Schilliger Holz AG, one of the prime suppliers of woodchip to Perlen Papier. Under the accord, Schilliger Holz AG will build a new facility for manufacturing wood-fibre insulation board on the Perlen Papier site, for which purpose the CPH Group will lease the company a 20 000-square-metre land plot. Once it comes into operation in 2023, Perlen Papier will provide the new plant with electricity, process steam, fresh water and demineralized water, and will process the plant's waste water output in its own treatment facility.

The CPH Group is living up in full to its responsibilities for cleaning up its former Uetikon industrial site. The site's clean-up costs were incorporated into the price for its sale to Canton Zurich in 2016. CPH is also meeting 80% of the costs of cleaning up the bed of Lake Zurich adjacent to the site, and has made provisions of CHF 20 million to this end. The lake bed clean-up began in November 2021, and is expected to take two to three years. CPH has also cleaned up – at its own expense – the adjacent Rotholz former waste disposal site in Meilen. This work was concluded in 2021.

The Packaging Division primarily processes PVC into films which are largely combined with aluminium films to produce blister packs. To better meet the demands of the circular economy, the division is working on developing halogen-free films and mono-material packagings which have no aluminium components and can thus be more easily recycled.

2 Economic sustainability

The CPH Group has diversified its industrial activities into three separate business segments. This is intended to better cushion the Group against fluctuations in its sales markets, some of which are volatile and cyclical by nature. Each of the Group's divisions is a leader in its target markets. The Group strives to create long-term value for all its stakeholders by offering products and services that are tailored to such markets and their needs, along with interesting work opportunities and attractive shareholder returns.

The Group has set itself the following medium-term financial targets:

- organic net sales growth of more than 3% a year
- an EBITDA margin of over 12%
- an equity ratio above 50%
- liquidity of CHF 30–50 million
- annual operating investments of CHF 20–25 million.

3 Ecological sustainability

The CPH Group's environmental reporting year runs from 1 November to 31 October. The Group's divisions conduct annual environmental audits that are structured in line with the Carbon Disclosure Project, which they have been doing since 2015 for Paper and since 2020 in the case of Chemistry and Packaging. The data these audits provide can help define even more targeted efforts to further reduce CO₂ emissions.

Use of resources

The Paper Division uses large volumes of resources, of which recovered paper is by far the most important raw material. The annual total of recovered paper recycled by Perlen Papier increased in 2021 from the 391 231 tonnes of the prior year to 420 983 tonnes. The proportion of this coming from Switzerland fell from 79% to 69% as domestic waste paper collection activities were reduced by the coronavirus pandemic and more waste paper had to be procured from adjacent border areas in neighbouring countries. About 10% of these recovered paper supplies were delivered to Perlen by rail. Perlen Papier also turned 92 791 bone-dry tonnes of round wood and woodchip into wood fibre in 2021 (compared to 81 717 bone-dry tonnes the previous year). CPH puts a particular emphasis on sustainable operations and short transport journeys when sourcing these raw materials: all the round wood used comes from Swiss sources, and 85% of it is from FSC-certificated forestry operations. Of the woodchip used, 80% is from within Switzerland and 45% is from FSC- or PEFC-certificated sources. Perlen Papier is also a member of ECO SWISS, Swiss business and industry's environmental protection organization, and of further bodies promoting sustainable forestry.

Energy consumption (GWh)

1 220

(prior year: 1 110)

Own-generated energy

22%

(prior year: 24%)

Waste paper recycled (tonnes)

420 983

(prior year: 391 231)

Waste paper Swiss-sourced

69%

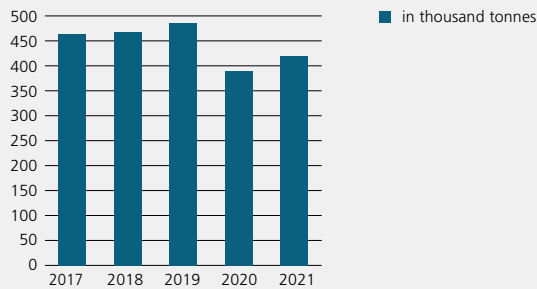
(prior year: 79%)

Waste wood used (tonnes)

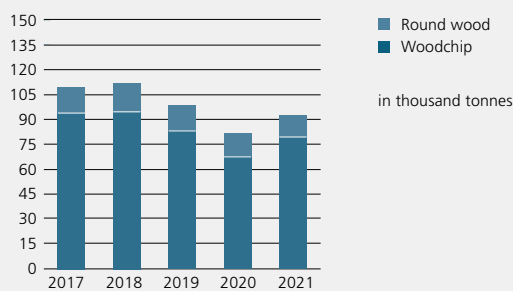
92 791

(prior year: 81 717)

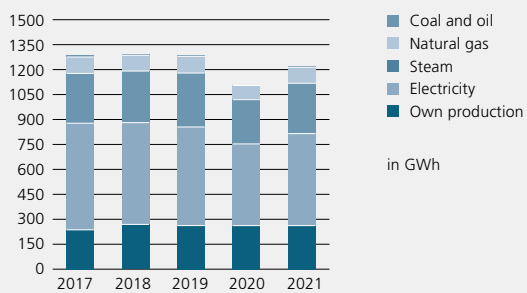
Recovered paper used



Waste wood used



Energy consumption



Perlen Packaging's film manufacturing processes primarily use unplasticized polyvinyl chloride (PVC), which is composed of 43% ethylene and 57% sodium chloride. Compared with other oil-based polymers, PVC boasts a better product carbon footprint for its overall life cycle. Wherever possible, waste and scrap material from the various manufacturing steps are fed back into the production process as secondary raw materials. The raw material utilization rates for 2021 were unchanged at 99% for PVC, and for PVdC declined from the 99% of the previous year to 98%. Perlen Packaging is also actively involved in the VINYLPlus programme, which promotes PVC recycling.

The Chemistry Division primarily uses intermediate products – filter cakes – as the raw material in its production activities. The Zvornik plant is located adjacent to the supplier of its filter cakes, minimizing both the transportation required and the associated carbon dioxide emissions.

Energy

Paper manufacturing is the most energy-intensive activity within the CPH Group. With paper production volumes recovering again from their prior-year decline, more energy was used overall and the Group's annual energy consumption rose 9.9% to 1220 gigawatt hours (GWh). Electricity consumption increased from 551 GWh to 613 GWh, and steam consumption rose from 560 GWh to 606 GWh. Some 91% of all the Group's electricity was used for paper production. Steam is primarily used to dry the paper webs. Sixty per cent of the steam used in Perlen in 2021 was obtained from the neighbouring Renergia waste incinerator facility; the rest was generated by CPH's own biomass plant. The Group's gas consumption increased from 87 GWh to 97 GWh.

Emissions, waste water and solid waste

The CPH Group voluntarily sets its own goals to reduce its emissions which are more rigorous than those required by law. In view of this, its Perlen site was exempt in 2021 from any carbon dioxide (CO₂) levy, and continues to emit some 10% of the maximum CO₂ legally permitted. As a result of the higher production volumes, total CO₂ emissions from the CPH Group's sites increased in 2021 from the 14785 tonnes of the previous year to 15886 tonnes. Of this 2021 amount, 8278 tonnes derived from the Paper Division, 5148 tonnes from the Chemistry Division and 2460 tonnes from the Packaging Division. CPH's German operations have been consistently using green electricity since 2018 in line with ISO 50001 energy management standards. A total of 214504 carbon credits were sold in 2021.

Exhaust air cleaning systems are installed at the Group's production facilities to reduce dust and filter out pollutants. The Rütli site also has its own monitored system to ensure that no such pollutants are emitted. Emergency concepts are in place to cope with any production malfunctions. The waste water produced by the Group's Perlen, Louisville and Donghai plants is processed in their own treatment facilities. Total groupwide waste water volume for the year increased from the 6.65 million cubic metres of 2020 to 7.22 million cubic metres.

Of the solid waste produced in the Group's paper processing and packaging film production activities, the biomass elements are used to generate heat and electricity in its own Perlen facility. The combustion process generates ash. Solid waste is also produced in the paper manufacturing process in the form of sludge. Some 8811 tonnes of fly ash and 108292 tonnes of paper sludge were reused in brickworks and the cement industry in 2021, while 1596 tonnes of bed ash were deposited at waste disposal sites. The solid waste generated in the production of molecular sieves consists of silicate-aluminium-clay compounds and is of natural origin. As a result, it can be reburied.

Transport

Various initiatives are under way at the CPH Group to reduce transport journeys and use ecofriendly means of transportation. Some 30% of paper deliveries in Switzerland in 2021 were made by rail; and for the first time ever, rail transport was also used to deliver around 2 000 tonnes of paper to Austria. Transport journeys will also be substantially shortened when the Group's new coating plant in Brazil opens in 2022, enabling the market to source its PVC monofilms from a local supplier.

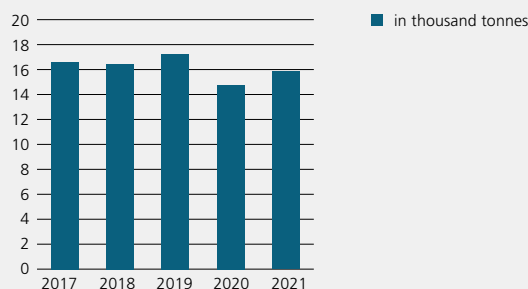
4 Social sustainability

The CPH Group is keenly aware of its responsibilities towards its employees. Its first company health insurance scheme was established for workers at its original Uetikon site as early as the 1860s, and its first occupational pension scheme was founded in 1918.

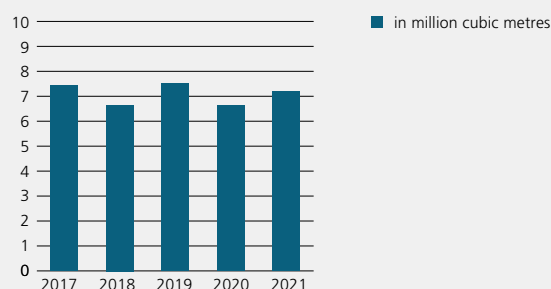
The Group strives to secure the best employees and to support their further development as effectively as possible within their working world. An open communications culture, a management and leadership that put CPH's values into practice and a safe, healthy and varied work environment are all intended to further employees' commitment to their work and identification with the Group.

CPH also attaches great importance to ensuring a sound work/life balance. The Group offers part-time working, retirement preparation courses and, at some of its locations, further part-time working models that make the transition to retirement a smoother and more flexible experience. Parties are also periodically held for and with the Group's employees at its various operating locations.

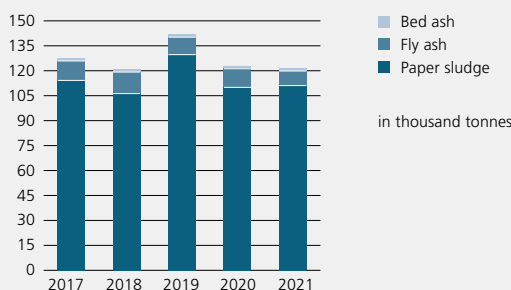
Carbon dioxide emissions



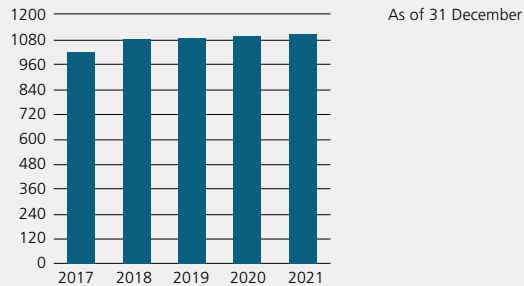
Waste water produced



Solid waste produced



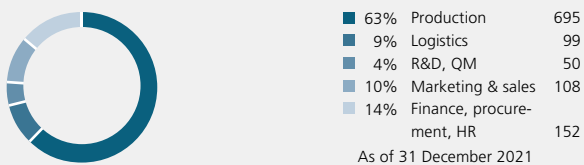
Total workforce numbers



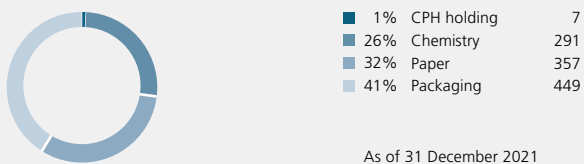
Workforce numbers by region



Workforce numbers by function



Workforce numbers by division



The CPH Group conducts surveys of its employees worldwide every three years on the topics of workplace, professional development, leadership, communications, innovation, customers, strategy and involvement. Some 71% of employees took part in the autumn 2019 survey. Their responses produced an Engagement Index of 75%, eight percentage points up on the previous such poll in 2016. Some 95% of respondents also reported that they were more satisfied than they had been three years before. The highest grades were earned for CPH's customer focus, leadership and appreciation and its working environment. Based on more specific needs at the Group's various sites, the survey responses were also used to define 79 individual actions and implement the same. The next such survey will be conducted in 2022.

Staff turnover for the year amounted to 9.8% (compared to 7.8% in 2020). The rate is driven primarily by turnover levels in China, which are substantially higher than at other sites. CPH also numbers many long-serving employees: some 21% of the 2021 workforce had been with the Group for 20 years or more. Service anniversaries are marked with awards ranging from small gifts to parties, depending on local customs. Many former employees also remain close to CPH, and meet up annually at retiree events organized by their former employer. The CPH Group supports its employees in their careers, and strives to fill at least one third of all vacant management positions with internal appointees.

Diversity and equal opportunities

Every employee within the CPH Group should be able to develop to their full potential. The Group maintains a fair and entirely non-discriminatory employment policy, strives for diversity and is committed to equal opportunities regardless of gender, age, ethnicity, religion or nationality. Perlen Papier earned the IV Award from the Canton Lucerne disability insurance authority in 2021 for its particularly successful integration into its workforce of persons with disabilities.

In all matters of recruitment, development and promotion, the prime emphasis at CPH is on the employee's individual performance, abilities and potential at the workplace concerned. A new Federal Gender Equality Act came into effect in Switzerland on 1 July 2020. The CPH Group analyzed the gender equality of salaries at the relevant operations with more than 100 employees in the course of 2021. The findings will be verified by an independent auditor by mid-2022 and then subsequently published.

The CPH Group companies' workforce is drawn from 35 nations, and collaborations in multicultural teams are actively practised and promoted. The total group workforce at the end of 2021 amounted to 1 104 employees, six more than a year before. A little over half of this total worked at CPH sites in Switzerland (see the chart on Page 46). The proportion of women in the total workforce was raised from the 18.9% of 2020 to 19.3%, and should be further increased. In age terms, 17% of the 2021 year-end workforce were under 30, 50% were between 30 and 50 and 33% were over 50 years old.

Code of conduct

The CPH Group does not tolerate discrimination on the basis of gender, skin colour, religion, nationality, disability, age, sexual orientation, physical or mental impairment, family status, political views or any other legally protected characteristic. All forms of physical and psychological violence, mobbing or sexual harassment at the workplace are prohibited.

The employees of the CPH Group are required to observe all applicable laws, to pursue fair business practices, to avoid conflicts of interest and to abide by the anti-corruption code. The Group's constituent companies are active in various international markets, and have formulated their ways and means of dealing with the issues of equal opportunities, healthcare, compliance, data protection, conflicts of interest, bribery, integrity and ethics in their own internal codes of conduct and operating regulations. The codes of conduct of the globally active Chemistry and Packaging divisions will be found on the CPH website at [https://cph.ch/en/investors/documentation/under 'Articles of Incorporation, regulations and descriptions of duties'](https://cph.ch/en/investors/documentation/under%20Articles%20of%20Incorporation,%20regulations%20and%20descriptions%20of%20duties).

Salary policy

The CPH Group pursues a fair and reasonable salary policy that is closely aligned to local customs and conditions. This policy is intended to offer salaries that pay due regard to the demands of the position, the conduct and performance of its occupant and general market levels. It also rewards above-average performance in various ways, such as via bonus payments or (with management positions) via a variable salary component that is linked to the achievement of individually-set performance goals and to group and/or divisional results. The Group made individual salary adjustments in 2021. The total cost of salaries, occupational pension scheme payments and initial and further training amounted to CHF 92.4 million.

Employees at the Perlen and Utzenstorf sites are subject to a collective labour agreement (CLA). Employees at the Müllheim site in Germany are subject to the CLA of the Industriegewerkschaft Bergbau Chemie Energie (IGBCE). Elsewhere, personnel work under individual employment contracts.

Total employees

1 104

(prior year: 1 098)

Apprenticeships completed

16

(prior year: 12)

Staff turnover

9.8%

(prior year: 7.8%)

Sickness-related absence rate

2.9%

(prior year: 2.7%)

Occupational accident-related absence rate

0.2%

(prior year: 0.1%)

Initial and further training

Switzerland and Germany both maintain a 'dual' education system that combines company apprenticeship placements with attendance at vocational schools. The system is a key element in both countries' economies and business sectors, providing the skilled professionals needed to maintain their competitive credentials in the longer term. Through its own vocational training activities at its Swiss and German sites, the CPH Group not only lives up to its social responsibility: the employees it trains play their full part, too, in achieving its business goals.

A total of 50 apprentices were on the CPH Group payroll as future automation engineers, chemical lab technicians, commercial officers, computer scientists, logistics officers, paper technologists, plant operators, polymechanics and production and process mechanics at the end of 2021. Brief portraits of ten of them and their future professions will be found on Pages 12 and 13. Internships for student engineers are also offered at the Group's operations in Germany and in Bosnia and Herzegovina. Sixteen apprentices completed their courses during the year, 11 of whom could be given permanent positions.

CPH's apprentices meet each year at an Apprentices Day for a group-level further training experience. A CPH Group employee spent an average of 1.7 days on in-house or external training in 2021 (compared to 1.1 days the year before). The Group invested a total of CHF 0.5 million in initial and further training for its employees over the course of the year.

Continuous improvement

The Group's divisions maintain a constant dialogue with their customers to monitor satisfaction and identify possible improvements. The divisions also conduct customer satisfaction surveys every two to three years which address such areas as service quality, technical support, product quality, product range, delivery times, reliability, complaints handling and pricing.

The Continuous Improvement Process (CIP) is a further key internal element in CPH's endeavours to ensure its constant future development and further raise quality and efficiency. The CIP is integrated into individual performance goals, and CIP training is conducted every year in all three divisions. Employees submitted 740 ideas to the CIP in 2021, and 212 group moderations were held. The proposals adopted helped enhance efficiency, improve safety and ease environmental impact, and generated a recurring annual benefit of CHF 1.4 million.

Industrial safety

CPH conducts regular training to help identify dangers and prevent accidents at all its operating sites. These activities include exercises in fire safety and in handling dangerous goods. Every site also has its own safety officer. Trained paramedics are on duty at the Group's production facilities, and the Perlen site also has a dedicated fire service which can swiftly draw on up to 50 responders if required. The Perlen fire service held 41 exercises and handled 24 deployments in 2021, despite coronavirus-related restrictions. A further exercise was conducted by the Rapperswil-Jona chemical hazard response unit at the Rüti site. The year saw one fire in the Perlen recovered paper reception area, which was quickly extinguished. No persons were injured, and paper production could resume after only a few days.

Any accidents or incidents that occur are systematically analyzed to help prevent their recurrence. The number of occupational accidents per one hundred CPH Group employees amounted to 2.7 in 2021 (compared to 1.6 in the previous year), which is a low level for a manufacturing concern. Happily, the year remained free of any serious industrial accidents. The occupational accident-related absence rate for 2021 stood at 0.2%.

Healthcare

The Group's various operations offer numerous healthcare facilities such as annual health check-ups and free flu vaccinations. A number of them also support their employees' personal fitness endeavours, by contributing to their gym subscriptions, by organizing group hikes or by participating in 'Bike to Work' programmes that encourage staff to cycle their daily commute. The groupwide sickness-related absence rate for 2021 amounted to 2.9%, which is around the industry average. Any employees who become ill receive extensive care and attention under a health case management programme.

Responding to the coronavirus pandemic posed a constant challenge for the CPH Group's health management teams throughout 2021. The physical distancing, hygiene and mask-wearing provisions imposed and maintained groupwide were supplemented during the year by regular workplace COVID testing. The Perlen site also participated in a pilot project of Canton Lucerne to conduct repeated mass testing in spring 2021, and went on to establish its own on-site testing and vaccination centre.

Social involvement

Numerous employees of the CPH Group are involved in activities for the communal good both at and away from work. Some serve as company paramedics or company fire officers, while others take part in charity projects in their leisure time. The company fire service was active in summer 2021 in providing local assistance in the wake of severe stormy weather, clearing roads and rail lines and pumping out flooded cellars. The Group's various operations also got involved in local community projects and with local charity organizations. And in appreciation of its customers' participation in the year's satisfaction survey, the Packaging Division planted 500 trees in a sustainable reforestation project in Germany, in collaboration with Planet Tree.

5 Compliance

No division of the CPH Group was penalized in 2021 for any violation or non-observance of any environmental provisions. CPH is firmly committed to climate protection through various project involvements. The Paper Division is a participant in a programme of the Energy Agency of the Swiss Private Sector to actively reduce carbon dioxide emissions, and is also a member of EcoSwiss, which campaigns for environmental protection, health protection and industrial and occupational safety. The Packaging Division is a member of the EcoVadis and Ecodesk organizations.

6 Branding policy

The CPH Group pursues a clear branding policy. At the company level the Group maintains five brands, which are aimed at differing markets and target groups. CPH Chemie + Papier Holding ('CPH'), the Group's holding company, is not operationally active, but serves as the industrial conglomerate's umbrella brand towards its various stakeholders. The Group's three business divisions operate under their corporate brands of 'Zeochem', 'Perlen Papier' and 'Perlen Packaging'. These were supplemented in 2018 with the addition of 'APS Altpapier Schweiz' as a further corporate brand of the Paper Division. The Group's corporate brands enjoy outstanding acceptance and high familiarity in their target markets, where they are bywords for both tradition and innovation. Perlen Papier has been operating since 1873. The Packaging Division emerged from the Paper Division at the same Perlen location in 1962, and has been trading under its Perlen Packaging brand since 2010. The Zeochem brand has been used since 1979, and originated at the Chemistry Division's US operation.

The Group's various companies maintain a product brand architecture that uses the same prefix to identify and assign products within each division. Thus, all of Zeochem's product names begin with 'Zeo-' (such as Zeoprep), all of Perlen Papier's product names are prefixed 'Perlen-' (such as Perlentop) and all of Perlen Packaging's product names begin with 'Perla-' (such as Perlalux). The product names are also registered as trademarks wherever possible, to protect them from counterfeiting.

Corporate brands



7 Quality

Consistent high quality is a hallmark of all the products of the CPH Group. This makes stringent demands on its processes, which are audited to international standards (see the table below). Production sites are subjected to regular audits by customers and by independent certification bodies. The Packaging Division aligns its business and production activities to the pharmaceutical sector's Good Manufacturing Practice (GMP) standards. The division's Anápolis site is seeking to secure its ISO 9001 and ISO 15378 certifications in 2022.

Production site quality certifications	Chemistry				Paper		Packaging				
	Rüti	Louisville	Donghai	Zvornik	Perlen	Utzenstorf	Perlen	Müllheim	Whippany	Suzhou	Anápolis
ISO 9001	•	•	•	•	•	•	•	•	•	•	planned
ISO 14001 (environmental)			•	•	•	•					
ISO 15378 (GMP)							•	•		•	planned
ISO 50001 (energy)								•			
ISO 45001 (safety)			•		•	•					
FDA, USA DMF Nos. 10686, 9072 and 30501							•	•		•	
EU Ecolabel, Blue Angel					•						
FSC COC, PEFC COC					•						
ECO SWISS CO ₂					•						

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Consolidated income statement

in CHF thousand	Note	2021	2020
Net sales	1	496 693	445 189
Changes to semi-finished and finished inventories		5 900	1 227
Other operating income	2	25 186	5 623
Goods and services on own account		98	246
Total income		527 877	452 285
Material expense		306 013	214 413
Energy expense		61 187	47 481
Personnel expense	3	92 367	93 131
Outsourced maintenance/repairs		17 662	17 375
Other operating expense	4	24 930	24 734
Earnings before interest, taxes, depreciation and amortization (EBITDA)		25 718	55 151
Depreciation on tangible fixed assets	17	27 013	29 214
Depreciation on intangible assets	16	1 372	1 274
Impairment	5	150 000	0
Earnings before interest and taxes (EBIT)		-152 667	24 663
Financial income	6	685	212
Financial expense	7	4 544	4 864
Financial result		-3 859	-4 652
Earnings before taxes and non-operating/extraordinary items		-156 526	20 011
Non-operating result	8	7 311	6 841
Extraordinary result	9	0	12 000
Earnings before taxes		-149 215	38 852
Income taxes	10	2 195	-8 111
Net result for the year		-151 410	46 963
- attributable to shareholders of CPH Chemie + Papier Holding AG		-151 559	46 901
- attributable to minorities		149	62
in CHF	Note	2021	2020
Net result after minorities per share	33	-25.26	7.82
Diluted net result per share	33	-25.26	7.82

Consolidated balance sheet

	Note	31.12.2021		31.12.2020	
		in CHF thousand	in %	in CHF thousand	in %
Assets					
Liquid funds	11	95 084	17	116 265	17
Securities	11	32	0	20	0
Trade accounts receivable	12	69 271	12	52 892	8
Other receivables	13	28 524	5	17 167	2
Prepaid expenses and accrued income	14	9 189	2	6 673	1
Inventories	15	87 528	16	78 323	11
Short-term financial receivables		75	0	0	0
Total current assets		289 703	52	271 340	39
Intangible assets	16	5 835	1	5 565	1
Tangible fixed assets	5/17	196 474	35	352 563	50
Long-term financial assets	18	10 000	2	10 000	1
Assets from employer contribution reserves	3/19	11 301	2	11 189	2
Pension scheme assets	3/19	12 867	2	11 550	2
Other long-term receivables	20	21 135	4	29 614	4
Deferred tax assets	21	13 083	2	12 412	2
Total fixed assets		270 695	48	432 893	61
Total assets		560 398	100	704 233	100
Equity and liabilities					
Trade accounts payable	22	84 787	15	56 751	8
Other payables	23	3 920	1	4 576	1
Accrued liabilities and deferred income	24	18 263	3	16 815	2
Short-term financial liabilities	25/27	3 227	1	8 088	1
Short-term provisions	26	7 368	1	3 331	0
Total current liabilities		117 565	21	89 561	13
Long-term financial liabilities	27	6 595	1	9 746	1
Corporate bonds issued	27	100 000	18	100 000	14
Pension scheme liabilities	3/19	1 356	0	1 157	0
Other long-term liabilities		263	0	369	0
Long-term provisions	28	24 125	4	31 533	4
Total long-term liabilities		132 339	24	142 805	20
Total liabilities		249 904	45	232 366	33
Share capital		1 200	0	1 200	0
Capital reserves		-56	-0	4 150	1
Treasury shares	34	0	0	-27	-0
Goodwill		-63 021	-11	-63 021	-9
Retained earnings		522 562	93	481 513	68
Net result for the year		-151 559	-27	46 901	7
Total equity excluding minorities		309 126	55	470 716	67
Minorities		1 368	0	1 151	0
Total equity including minorities		310 494	55	471 867	67
Total equity and liabilities		560 398	100	704 233	100

Consolidated cash flow statement

in CHF thousand	Note	2021	2020
Net result for the year (including minorities)		-151 410	46 963
Depreciation on tangible and intangible assets	16/17	28 385	30 488
Asset value impairments	5/17	150 000	0
Loss/(Profit) on fixed-asset sales		-7 547	-5 042
Change in employer contribution reserves, pension scheme assets/liabilities	19	-1 230	168
Book gains on securities and other non-cash currency effects		-17	5
Share-based compensation	3/34	180	180
Change in provisions	26/28	356	-16 057
Release of/(Increase in) deferred taxes	21	-652	-11 967
Further non-cash income/expense		-1 406	1 103
Cash flow		16 659	45 841
Decrease/(Increase) in securities		5	0
Decrease/(Increase) in trade accounts receivable	12	-15 521	20 486
Decrease/(Increase) in other receivables and prepaid expenses	13/14	-7 196	-143
Decrease/(Increase) in inventories	15	-9 578	-4 059
Increase/(Decrease) in trade accounts payable	22	30 742	-9 002
Increase/(Decrease) in other and accrued liabilities	23/24	727	1 835
Decrease/(Increase) in net current assets		-821	9 117
Cash flow from operating activities		15 838	54 958
Investments in tangible fixed assets	17	-22 965	-17 507
Disposals of tangible fixed assets	17	5 212	5 234
Investments in intangible assets	16	-1 630	-1 268
Investments in business activities/minorities	29	0	-1 600
Investments in financial and other long-term receivables	20	-78	-258
Disposals of financial and other long-term receivables	20	243	124
Cash flow from investment activities		-19 218	-15 275
Free cash flow		-3 380	39 683
Increase in short-term financial liabilities	25	0	1 370
Decrease in short-term financial liabilities	25	-6 914	-5 759
Increase/(Decrease) in long-term financial liabilities	27	0	0
Increase/(Decrease) in other long-term liabilities		-106	-231
Treasury share purchases	34	-394	-1 543
Treasury share sales	34	235	1 355
Nominal value reduction		0	-10 798
Dividends to shareholders		-10 798	-16
Cash flow from financing activities		-17 977	-15 622
Currency translation effects		176	-892
Net change in cash and cash equivalents		-21 181	23 169
Cash and cash equivalents at 1 January		116 265	93 096
Change		-21 181	23 169
Cash and cash equivalents at 31 December		95 084	116 265

Consolidated statement of changes in equity

in CHF thousand	Share capital	Capital reserves	Treasury shares	Goodwill	Retained earnings	Equity excluding minorities	Minorities	Equity including minorities
As at 31.12.2019	12 000	4 174	-45	-61 736	485 318	439 711	1 578	441 289
Distribution to shareholders						0	-16	-16
Purchases in minorities				-1 285		-1 285	-315	-1 600
Nominal value reduction	-10 800	2				-10 798		-10 798
Net result for the year					46 901	46 901	62	46 963
Treasury share purchases			-1 543			-1 543		-1 543
Treasury share sales		-20	1 375			1 355		1 355
Share-based compensation		-6	186			180		180
Currency translation effects					-3 805	-3 805	-158	-3 963
As at 31.12.2020	1 200	4 150	-27	-63 021	528 414	470 716	1 151	471 867
Distribution to shareholders		-4 200			-6 598	-10 798	0	-10 798
Net result for the year					-151 559	-151 559	149	-151 410
Treasury share purchases			-394			-394		-394
Treasury share sales		-6	241			235		235
Share-based compensation			180			180		180
Currency translation effects					746	746	68	814
As at 31.12.2021	1 200	-56	0	-63 021	371 003	309 126	1 368	310 494

The statutory reserves of the holding company and its subsidiaries as at 31 December 2021 amounted to CHF 27.4 million (prior year: CHF 24.0 million). Of this amount, CHF 17.2 million (prior year: CHF 9.5 million) cannot be distributed.

The company held no treasury shares as at 31 December 2021 (prior year: 376 shares). For further details see Note 34.

Goodwill amounting to CHF 1.3 million was offset against equity in 2020 as a result of the acquisitions of minority holdings (see also Notes 16 and 29).

Consolidated accounting principles

General remarks

The consolidated financial statements of the CPH Group are compiled in full accordance with the currently valid Swiss GAAP Accounting and Reporting Recommendations (FERs). These consolidated financial statements give a true and fair view of the financial positions, earnings and cash flows, and are based on historical values.

The Swiss GAAP FERs were unchanged in 2021, and the consolidated accounting principles below are also unchanged from the prior year. The capitalization and valuation principles for intangible assets were expanded with the addition of those for carbon credits.

Coronavirus crisis and significant management estimates

For the compilation of the consolidated financial statements, estimates and assumptions must be made which may impact on the accounting principles to be used and on the amounts shown under assets, liabilities, income and expenditures and the presentation thereof. In view of the coronavirus crisis, possible ramifications were studied in detail in 2020. On the basis of these studies, the Board of Directors and Group Executive Management considered various scenarios, none of which offered any indication that business could not continue as a going concern. The situation continues to be constantly monitored.

Definitions

'Goodwill' is an intangible asset that arises when a company or part thereof is acquired.

In accordance with the Swiss GAAP FERs, the cash flow statement shows as funds only cash and cash equivalents (excluding securities and fixed-term deposits of more than 90 days). Cash flow is calculated using the Indirect Method.

'Related parties' are regarded as any company or person that either exerts a substantial influence on the CPH Group or is controlled by the same, together with the occupational pension schemes of group member companies.

Alternative performance measures and indicators not defined in the Swiss GAAP FERs

For the reader's benefit, CPH has added certain specific intermediate totals which can be deduced from the tables concerned. An overview of the alternative performance measures currently used by CPH is available for download from the CPH website under 'Investors / Alternative performance measures' ([https://cph.ch/en/investors/Alternative performance measures](https://cph.ch/en/investors/Alternative%20performance%20measures)).

Consolidation principles

Scope and method of consolidation

The consolidated financial statements consist of the annual financial statements of CPH Chemie + Papier Holding AG, Perlen and of those CPH Group member companies in and outside Switzerland in which CPH Chemie + Papier Holding AG, Perlen directly or indirectly holds more than 50% of voting rights. The balance sheet date for all CPH Group member companies is 31 December. In accordance with the Purchase Method used for fully consolidated companies, assets and liabilities and income and expenditures are incorporated in full. Intercompany balances and transactions have been eliminated. The shares of minority shareholders or minority partners in the equity and in the results of consolidated companies are shown separately but also as part of the consolidated equity and result. Intermediate profits on stocks from intragroup deliveries have been eliminated.

Group member companies acquired in the course of the year are consolidated from the date of CPH's assumption of control. Group member companies disposed of in the course of the year are deconsolidated from the date of CPH's cession of control. When a company is acquired, its net assets are determined at their current value and integrated using the Purchase Method. The resulting goodwill is offset against equity. In the case of successive acquisitions of minorities, the goodwill is determined separately for each acquisition step. If the purchase price of an acquisition includes elements that are linked to future earnings, the value of these elements is estimated as accurately as possible at the time of acquisition for goodwill calculation purposes. Should there be deviations from these estimates when the final purchase price is determined, the goodwill offset against group equity is adjusted accordingly.

For the scope of consolidation and changes thereto in 2021, please see Note 29 in the 'Additional information on the consolidated financial statements' and the 'List of major shareholdings' on Page 80.

Foreign currency translation

The consolidated financial statements are presented in Swiss francs (CHF). The financial statements of the Group's constituent companies are presented in the local currency. The financial statements of subsidiaries which are in currencies other than the Swiss franc are translated into Swiss francs as follows:

All assets and liabilities on the balance sheets are translated into Swiss francs at the exchange rate ruling on the balance sheet date (the Effective Date Method). Any differences arising from the use of differing translation rates in the course of such translation are taken to equity. Foreign-currency income and expenditure in the income statements are translated at the average rates ruling for the year. Any translation differences resulting from the application of different exchange rates in the balance sheet (effective date) and the income statement (average rate) are taken to equity with no impact on the

income statement. In the event of the disposal of a foreign subsidiary, the associated translation differences to date are taken straight to the income statement. Any translation differences arising from long-term intragroup financing of an equity nature are also taken directly to group equity.

Positions held in foreign currencies are translated using the Effective Date Method. All assets and liabilities are translated at the exchange rate ruling on the balance sheet date. Transactions in foreign currencies are translated at the exchange rate ruling on the date of the transaction. The effects of these foreign currency adjustments are taken straight to the income statement.

For the most important foreign currencies, the following CHF translation rates were used:

	2021	2020
Balance sheets: year-end rates		
EUR	1.0360	1.0820
USD	0.9110	0.8840
CNY (CHF per 100 CNY)	14.30	13.52
SGD	0.6760	0.6690
BAM	0.5297	0.5532
BRL	0.1640	0.1700
Income statements/ cash flow statements: average rates		
EUR	1.0810	1.0710
USD	0.9140	0.9380
CNY (CHF per 100 CNY)	14.18	13.60
SGD	0.6800	0.6800
BAM	0.5527	0.5476
BRL	0.1700	0.1840

Capitalization and valuation principles

Liquid funds

Liquid funds consist of cash on hand, postal and bank account balances and fixed-term deposits originally maturing in 90 days or less.

Securities

Securities are readily marketable financial and capital investments managed internally or externally. They are stated at their current market value.

Trade accounts receivable

Trade accounts receivable consist of amounts due for deliveries made and services rendered which have been invoiced but for which payment has not yet been received. Their values are generally adjusted individually. Such individual adjustments include any amounts overdue for at least 120 days. Blanket adjustments are also made, based on past experience.

Other receivables

Other receivables consist of short-term claims that are not based on deliveries made and/or services rendered. Other receivables are stated at their nominal value, less any value adjustments.

Prepaid expenses and accrued income

This item consists of expenses paid in the current accounting period that will be incurred in a later accounting period, and of income not accounted until after the balance sheet date.

Inventories

Inventories are stated at their average purchase price or production cost, but at no higher than their realizable liquidation value. Any discounts received on purchases are treated as purchase price reductions. The Lower of Cost or Market Value Principle is applied. The values of semi-finished and finished inventories include an appropriate proportion of their production overheads. Value adjustments are effected for obsolete stock.

Short-term financial receivables

These include interest-bearing receivables with a maturity of up to one year, and are reported at nominal value less any value adjustments.

Intangible assets

Intangible assets include licences, patents, brands and software acquired from third parties. These are valued at their purchase price or manufacturing cost less any amortization required. Amortization is effected on a straight-line basis over the item's useful life, up to a maximum five-year period.

Intangible assets also include the carbon credits issued free of charge by the Swiss Federal Office for the Environment, which are initially capitalized at zero nominal value. In accordance with the provisions of Swiss GAAP FER 10, such carbon credits are subsequently valued at acquisition price. Carbon credits are realized upon their use or sale. Any income from such sales is shown under other operating income.

The goodwill deriving from acquisitions is offset against retained earnings at the time of acquisition. In the event of the disposal of a part of the business, any associated goodwill previously offset against equity is taken to the income statement. The impact of any theoretical capitalization and amortization is shown in the notes. For theoretical accounting purposes, goodwill is basically written down over its useful economic life, and generally over five years. Impairments are effected if required.

Tangible fixed assets

Land is capitalized at its purchase price less any devaluation. Other tangible fixed assets (buildings, structures, production plant, machinery, installations, vehicles, movable property, other equipment and production and business facilities) are capitalized at a maximum of their purchase price or manufacturing cost less any depreciation required under normal business practice. The useful lives assumed for depreciation purposes are as follows:

Residential property	50–100 years
Office buildings	33–66 years
Industrial buildings and infrastructure	25–50 years
Installations, production plant and machinery	5–30 years
Other plant and equipment	5–15 years
IT hardware (HW)	3–8 years
Installations in rented premises	Rental period
Vehicles	5–15 years

All depreciation is effected using the straight-line method.

Long-term financial assets

This item comprises all holdings of 20% or less in the capital of other organizations. These are shown at their purchase price less any value adjustments required.

Long-term financial receivables

This item comprises all long-term interest-bearing loans with a maturity of more than one year, which are shown at their (undiscounted) nominal value less any value adjustments.

Assets from employer contribution reserves

In accordance with Swiss GAAP FER 16, employer contribution reserves or comparable positions are listed as assets. Any differences from the corresponding value in the prior accounting period are taken to the income statement as personnel expense.

Pension scheme assets

Any economic benefits deriving from occupational pension schemes are capitalized here. Such economic benefits will be capitalized if the benefit concerned can be used for the company's future pension scheme obligations. Any differences from the corresponding value in the prior accounting period are taken to the income statement as personnel expense.

Asset impairments

All assets are assessed for any impairment in value on the balance sheet date. This assessment is based on any developments and/or indications which suggest that an asset may have been overvalued in its book value. If the asset's book value exceeds its realizable value (i.e. the higher of its net market value and its value in use), the resulting impairment will be taken to the income statement. If the factors previously considered in the calculations of an asset's realizable value have significantly improved, an impairment effected in an earlier accounting period will subsequently be wholly or partially reversed via the income statement.

Other long-term receivables

This item includes all other non-interest-bearing long-term receivables due for payment more than one year after the balance sheet date.

Trade accounts payable

Trade accounts payable include all non-interest-bearing short-term liabilities resulting from ordinary business activities. They are stated at their nominal value.

Other payables

Other payables are short-term liabilities that are not classified as financial liabilities but derive from business activities. They are reported at their nominal value.

Accrued liabilities and deferred income

This item consists of liabilities incurred before the balance sheet date that will not be due for payment until a later accounting period, and of income accrued before the balance sheet date for a product or service to be provided in a later accounting period.

Short-term financial liabilities

This item consists of interest-bearing liabilities maturing in up to one year. These are stated at their nominal value.

(Short-term and long-term) provisions

Provisions are effected for likely liabilities arising from an event in the past (i.e. before the balance sheet date) whose extent and/or incurrence is uncertain but may be estimated. All provisions made are regularly reappraised (at least every year). Any release of provisions is effected via the same position through which the provision was originally effected. A distinction is made between short-term provisions (for liabilities likely to be incurred in up to one year) and long-term provisions (for liabilities likely to be incurred later than this). The changes in provisions are listed in the notes to the consolidated financial statements.

Long-term financial liabilities

This item consists of interest-bearing financial liabilities (bank loans and bonds) with a contractually agreed maturity of more than one year. They are shown at nominal value.

Corporate bonds

Corporate bonds are shown at nominal value.

Pension scheme liabilities

Any economic liabilities deriving from occupational pension schemes are capitalized here. Such liabilities will be capitalized if the criteria for making appropriate provisions are met. Any differences from the corresponding value in the prior accounting period are taken to the income statement as personnel expense. The Group's Swiss-based subsidiaries maintain legally autonomous occupational pension schemes which are financed by employer's and employees' contributions. The economic impact on the Group through such schemes' overfunding or underfunding is determined on the basis of the schemes' annual financial statements and Swiss GAAP FER 26. Any economic liabilities deriving from pension schemes outside Switzerland which meet the criteria for making appropriate provisions are capitalized.

Other long-term liabilities

This item consists of non-interest-bearing liabilities with a maturity of more than one year. They are shown at nominal value.

Leases

Finance lease agreements are shown in tangible fixed assets and other financial liabilities if the associated benefits and risks are largely transferred to the CPH group member company concerned upon the lease's signing. Investment properties are shown at the lower of the cash value of the minimum leasing instalments or the current market value. The corresponding finance lease obligations are shown under liabilities. Leasing instalments are divided into interest expense and repayment amounts using the Annuity Method. The item leased is depreciated over the shorter of its estimated service life or the lease's duration. Operating lease payments are taken to the income statement as other operating expense over the lease's duration.

Derivative financial instruments

Derivative financial instruments are treated according to their underlying motives. Hedges intended to offset currency movements are shown at their market value on the balance sheet date, with the resulting changes in value taken straight to the income statement. Hedges of future cash flows are not capitalized, but are shown in the notes to the consolidated financial statements (under Note 32.4).

Share-based compensation

Share-based compensation is valued at the share price applicable on the shares' assignment, and is shown under both equity and personnel expense. The definitively assigned shares are subject to a three-year vesting period, during which the number of shares assigned is not contingent on any further performance, results or other vesting conditions. The difference between the share price on assignment and the purchase price of the treasury shares concerned is shown in capital reserves.

Treasury shares

Treasury shares are shown at their original purchase price. The treasury shares held are shown as a negative item in equity. If they are later sold, the resulting profit or loss is taken directly to capital reserves.

Net sales and recording of sales

Net sales comprise the sales of products and services resulting from ordinary business activities. A sale is recorded when it is likely that its economic benefit will accrue to the Group and its amount can be reliably calculated. The sale is regarded as realized with the transfer to the customer of the benefit and the risks concerned. Silicate chemistry products, newsprint, magazine paper and coated films are the Group's main sales generators: sales from its services are of negligible importance. Net sales are sales less such deductions as price reductions, rebates, discounts, special distribution charges and value-added tax.

Changes to semi-finished and finished inventories

This item contains the changes to semi-finished inventories, to work in progress and to finished inventories.

Other operating income

The operating income shown under this item derives mainly from energy sales, from sales of carbon credits and from leases and rentals of business premises.

Material expense

This item contains all the costs of raw, auxiliary and operating materials, the cost of merchandise and expenses incurred through the outside manufacture or processing of the company's own products (third-party services).

Personnel expense

Personnel expense comprises all the amounts paid to employees who are members of the group workforce under employment law for the work they provide. It also includes all compulsory and voluntary social security contributions. It further includes other personnel expense such as the costs of temporary personnel, recruitment, initial and further training and the reimbursement of expenses incurred in connection with professional training.

Energy expense

Energy expense includes the costs of electricity and steam obtained from outside suppliers, heating oil, natural gas, water and fuel wood.

Outsourced maintenance/repairs

This item contains the costs of repairs and maintenance performed by third parties (including the materials used) which are not capitalized, plus the materials used for the Group's own maintenance and repair activities.

Research and development

Research costs are taken straight to the income statement. Development costs are only capitalized if a future economic benefit can be demonstrated. If it cannot, these are also taken straight to the income statement for the accounting period in which they are incurred.

Other operating expense

This item contains sales and administration costs and further operating expenses.

Non-operating result

The non-operating result contains any income or expenses deriving from business or events that are clearly separate from operating activities.

Extraordinary result

The extraordinary result contains any income or expenses which derive extremely rarely from ordinary business activities and cannot be foreseen.

Income taxes

Provisions are made for all tax liabilities, regardless of when they are due for payment. Deferred income tax amounts are calculated for all temporary differences using the Balance Sheet Liability Method. Such temporary differences arise from deviations between the Swiss GAAP FER values and the taxable values of assets and liabilities.

If the taxable result differs from the consolidated profit for the year based on uniform valuation principles, provisions are made for any additional taxes anticipated. Such differences result from the use of fiscally approved degressive depreciation methods and value adjustments. The deferred taxes due on these deviation amounts are calculated using the local tax rates that are expected to apply. In the event of any changes to such rates or deviations therefrom, the deferred tax amounts are adjusted accordingly. Any change in provisions for deferred tax amounts is taken straight to the income statement.

Deferred taxes on temporary differences may only be recognized if they are likely to be fiscally offset through future profits. Deferred taxes on losses carried forward are not capitalized, in accordance with the consolidated accounting principles.

Additional information on the consolidated financial statements

1. Segment information

1.1 Net sales by region

in CHF thousand	2021	%	2020	%
Switzerland	53 925	11	48 289	11
Europe (excluding Switzerland)	275 655	56	276 755	62
The Americas	100 553	20	64 602	15
Asia	54 194	11	49 461	11
Rest of the world	12 366	2	6 082	1
Total	496 693	100	445 189	100

Total net sales were 11.6% (CHF 51.5 million) up on their prior-year level, or 12.6% (CHF 56.0 million) up based on prior-year currency translation rates. The impact of currency movements amounted to -1.0% (CHF -4.5 million). The average EUR/CHF currency exchange rate was 0.9% up on the previous year, while the average USD/CHF rate showed a 2.6% decline.

1.2 Income statement by division

2021 in CHF thousand	Chemistry	Paper	Packaging	Other/ consolidation	Group
Net sales	95 146	230 877	170 670		496 693
EBITDA	20 456	-8 007	11 916	1 353	25 718
in % of net sales	21.5	-3.5	7.0		5.2
EBIT before impairment	15 308	-24 888	5 686	1 227	-2 667
in % of net sales	16.1	-10.8	3.3		-0.5
EBIT	15 308	-174 888	5 686	1 227	-152 667
in % of net sales	16.1	-75.7	3.3		-30.7

2020 in CHF thousand	Chemistry	Paper	Packaging	Other/ consolidation	Group
Net sales	73 286	209 581	162 322		445 189
EBITDA	9 467	17 369	27 819	496	55 151
in % of net sales	12.9	8.3	17.1		12.4
EBIT	4 612	-2 035	21 626	460	24 663
in % of net sales	6.3	-1.0	13.3		5.5

2. Other operating income

in CHF thousand	2021	2020
Energy sales	3 214	3 116
Sales of carbon credits	18 104	0
Rental income from business premises	508	507
Income from production waste	1 040	676
Miscellaneous	2 320	1 324
Total	25 186	5 623

Other operating income was substantially higher in 2021 than it had been the previous year owing to the sales of carbon credits which had been issued to Perlen Papier AG between 2018 and 2021 (see also Note 16). 'Miscellaneous' for 2021 includes government grants (in the USA) amounting to CHF 1.4 million (prior year: CHF 0.0 million).

3. Personnel expense

in CHF thousand	2021	2020
Salaries and wages	77 704	76 914
Pension scheme contributions and other social security expense	13 022	14 346
Other personnel expense	1 641	1 871
Total	92 367	93 131

Personnel expense for 2021 was 0.8% (CHF 0.8 million) below its prior-year level. Personnel numbers were increased in the Chemistry Division in response to the high product demand, while personnel expense for the Paper and Packaging divisions were below those of 2020. The Paper Division received short-time working compensation amounting to CHF 0.2 million (prior year: CHF 1.6 million). In addition to the contributions to state social security institutions, 'Pension scheme contributions and other social security expense' includes the contributions to company pension schemes described in Note 19. Members of Group Executive Management were assigned a total of 2 682 shares in 2021 under their share-based compensation provisions. Based on a share price of CHF 66.80, the corresponding expense, which is included under 'Salaries and wages', amounted to CHF 0.18 million.

4. Other operating expense

The CHF 24.9 million of other operating expense (prior year: CHF 24.7 million) includes sales and administrative costs and further operating expenses.

5. Impairment

The fixed assets of the Paper Division were tested for impairment as at 31 December 2021.

The European market for graphic printing paper has been undergoing radical structural change for over ten years now. Print newspapers are losing ground to digital platforms as a news medium. The trend is accompanied by consolidation within the media market. So not only are newspapers shrinking in print run and page volume terms: numerous titles have been merged or have closed entirely. As a result, the demand for newsprint has been falling in Western Europe since 2008 by some 6–8% a year. The decline has also prompted adjustments to production capacities. But since such reductions take longer to effect, overcapacities have developed, and with them strong pricing pressures. This in turn has halved paper prices from their previous highs.

With substantially less paper manufactured during the coronavirus pandemic, less waste paper was also available for recycling use. The industry thus faced a shortage of recovered paper in 2021 when demand for its products picked up again in the course of the year. The situation was exacerbated by higher demand from the cardboard packaging sector, which used both waste cardboard and waste paper as raw materials to provide sufficient volumes of packaging for the booming online sales segment. As a result, recovered paper prices rose to historic highs, and waste paper supply lines were tested to the extreme. Steep rises were also seen in electricity and thermal energy prices.

No medium-term easing of the European paper and raw materials market situation is currently in sight. Margins will remain under pressure, accentuated by still-high raw materials and energy prices. In view of the continuing predatory competition and the substantially higher raw materials and energy prices, an impairment of CHF 150 million (prior year: CHF 0) was effected to net market value (see also Note 17). As a result, the assets concerned are now valued on the basis of their net market value, which is negligibly above their value in use. An impairment of CHF 4.1 million (prior year: CHF 0) was also recognized in theoretical goodwill movement (see Note 16).

6. Financial income

in CHF thousand	2021	2020
Interest income	39	32
Other financial income	626	179
– currency exchange rate gains	573	143
– further financial income	53	36
Income from securities	20	1
Total	685	212

Financial income was CHF 0.5 million up on its prior-year level, owing to exchange rate gains on amounts held in foreign currencies.

7. Financial expense

in CHF thousand	2021	2020
Interest expense	2 493	2 693
– interest paid	2 495	2 690
– changes in deferred interest due	–2	3
Other financial expense	2 050	2 166
– currency exchange rate losses	1 584	1 856
– further financial expense	466	310
Expenditure on securities	1	5
Total	4 544	4 864

Financial expense was CHF 0.3 million below its prior-year level owing to lower currency exchange rate losses.

8. Non-operating result

The non-operating income of CHF 7.7 million (prior year: CHF 7.3 million) comprises rental income and proceeds from the sale of real estate not required for operations in Buchrain (CHF 4.6 million, prior year CHF 5.2 million) and Full-Reuenthal (CHF 3.1 million, prior year CHF 0.1 million). Prior-year non-operating income also includes the release of CHF 2.0 million of provisions made for environmental protection measures to clean up the Rotholz waste disposal site in Meilen, Canton Zurich. The non-operating expense of CHF 0.4 million (prior year: CHF 0.5 million) consists of expenditure relating to the sale and management of non-operating real estate in Uetikon, Perlen, Buchrain and Full-Reuenthal.

9. Extraordinary result

There was no extraordinary income or extraordinary expense in 2021. In the previous year, the provisions for the lake bed clean-up at the former Uetikon site were reduced by CHF 12.0 million, with the release effected via the extraordinary result by analogy to the original creation in 2016 of the provisions concerned (see Notes 26/28).

10. Income taxes

in CHF thousand	2021	2020
Current income taxes	2 238	3 745
Deferred income taxes	-43	-11 856
Total	2 195	-8 111

Income tax expense for 2021 amounted to CHF 2.2 million. In the previous year an intragroup transfer of real estate at the Perlen site resulted in deferred tax assets and corresponding deferred tax income of CHF 11.9 million.

Tax rates varied in 2021 between 10% and 34% (prior year: between 10% and 34%) depending on the country and the location.

Income taxes for 2021	Tax rate in %	Tax amount in CHF thousand
Earnings before taxes		-149 215
Weighted average tax rate expected/estimated tax expense	11.6	-17 286
Impact of losses carried forward not recognized in current year in tax terms		22 306
Impact of losses carried forward not recognized in prior years in tax terms		-2 292
Taxes paid in prior years		-35
Other effects		-498
Tax rate/tax expense as per income statement	-1.5	2 195

The Group's expected income tax rate for 2021 amounted to 11.6% (prior year: 18.2%). This is the weighted average tax rate based on the individual profits/losses before taxes and tax rates for each group member company. The change in this expected income tax rate is due to the profit/loss situation and changed tax rates at the various group member companies. The difference in the year under review between the estimated income tax expense and the income tax expense shown in the income statement is attributable largely to the non-recognition of losses carried forward from 2021 (primarily the fixed assets impairment at Perlen Papier AG).

In accordance with the consolidated accounting principles, deferred taxes on losses carried forward are not capitalized. Uncapitalized losses carried forward increased in 2021 to CHF 285.7 million (prior year: CHF 65.2 million), with a potential tax impact of CHF 20.8 million (prior year: CHF 7.4 million), paying due regard to the multi-year plan and the provisions of and possibilities under the relevant national tax laws. The change is attributable in particular to the fixed assets impairment. CHF 3.3 million of the losses carried forward are of indefinite duration (prior year: CHF 0.0 million), and CHF 13.4 million thereof (prior year: CHF 5.2 million) will expire within a year.

Income taxes for 2020	Tax rate in %	Tax amount in CHF thousand
Earnings before taxes		38 852
Weighted average tax rate expected/estimated tax expense	18.2	7 080
Impact of losses carried forward not recognized in current year in tax terms		140
Impact of losses carried forward not recognized in prior years in tax terms		-3 656
Impact of intragroup real-estate transaction resulting in use of losses carried forward not recognized in prior years in tax terms		-11 929
Taxes paid in prior years		-135
Other effects		389
Tax rate/tax expense as per income statement	-20.9	-8 111

In 2020 Perlen Papier AG transferred real estate at the Perlen site to Perlen Papier Immobilien AG at market rates. The transaction was effected using a previously uncapitalized CHF 97.1 million of tax losses carried forward. The intragroup transaction resulted in deferred tax assets and corresponding deferred tax income of CHF 11.9 million, as the purely tax-related upward revaluation generated a deductible temporary difference.

11. Liquid funds and securities

Liquid funds decreased from CHF 116.3 million to CHF 95.1 million in 2021 as a result of the negative free cash flow developments and the repayment of financial liabilities.

12. Trade accounts receivable

in CHF thousand	2021	2020
Receivables from third parties	75 455	60 032
Receivables from associates	0	0
Provisions for doubtful debts	-6 184	-7 140
– individual adjustments	-6 184	-7 135
– blanket adjustments		-5
Total	69 271	52 892

Trade accounts receivable were CHF 16.4 million above their prior-year level, owing to the higher net sales.

Individual adjustments are effected to certain doubtful receivables. Such adjustments were CHF 1.0 million lower in 2021 than they had been for the prior year. The levels of such adjustments could be reduced in the Paper and Packaging divisions.

13. Other receivables

Other receivables were CHF 11.4 million up on their prior-year level. The increase is attributable largely to a reclassification of short-term receivables relating to the lake bed clean-up and to real estate activities.

14. Prepaid expenses and accrued income

The CHF 2.5 million change in prepaid expenses and accrued income is attributable to outstanding state 'KEV' compensation for green energy generated.

15. Inventories

15.1 Inventories by division

in CHF thousand	2021	2020
Chemistry	29 353	28 468
Paper	27 154	23 567
Packaging	31 021	26 288
Total	87 528	78 323

15.2 Inventories by type

in CHF thousand	2021	2020
Raw materials	19 406	17 367
Auxiliary and operating materials	15 294	13 997
Finished and semi-finished products	51 723	46 257
Goods for resale	1 105	702
Total	87 528	78 323

Inventories were CHF 9.2 million above their prior-year levels, owing primarily to the increases in raw materials prices.

Inventories were subjected to an overall impairment of CHF 4.7 million (prior year: CHF 4.4 million).

16. Intangible assets

Intangible assets in 2021 in CHF thousand	Software, licences and patents	Other intangible assets	Total intangible assets
At purchase values			
Opening balance on 1.1.2021	16 848	1 139	17 987
Currency impact on opening balance	-81	49	-32
Additions	1 620		1 620
Disposals/reclassifications	-1 323		-1 323
Currency impact on movements	-3		-3
Closing balance on 31.12.2021	17 061	1 188	18 249
Depreciation			
Opening balance on 1.1.2021	11 980	442	12 422
Currency impact on opening balance	-60	9	-51
Depreciation for the period	1 352	20	1 372
Disposals/reclassifications	-1 323		-1 323
Currency impact on movements	-6		-6
Closing balance on 31.12.2021	11 943	471	12 414
Book value on 1.1.2021	4 868	697	5 565
Book value on 31.12.2021	5 118	717	5 835

'Additions' above include major investments in ERP system software in the Packaging Division.

The intangible assets as at 31 December 2021 include zero carbon credits (prior year: 214 504 credits) issued free of charge by the Swiss Federal Office for the Environment to Perlen Papier AG, which are initially capitalized at zero nominal value. These carbon credits are realized upon their use or sale. Any income deriving from such sales is shown under other operating income.

Intangible assets in 2020 in CHF thousand	Software, licences and patents	Other intangible assets	Total intangible assets
At purchase values			
Opening balance on 1.1.2020	15 769	1 173	16 942
Currency impact on opening balance	-24	-34	-58
Additions	1 268		1 268
Disposals/reclassifications	-167		-167
Currency impact on movements	2		2
Closing balance on 31.12.2020	16 848	1 139	17 987
Depreciation			
Opening balance on 1.1.2020	10 912	434	11 346
Currency impact on opening balance	-17	-14	-31
Depreciation for the period	1 251	23	1 274
Disposals/reclassifications	-167		-167
Currency impact on movements	1	-1	0
Closing balance on 31.12.2020	11 980	442	12 422
Book value on 1.1.2020	4 857	739	5 596
Book value on 31.12.2020	4 868	697	5 565

The goodwill deriving in 2020 from the acquisitions of business activities and minorities was offset directly against equity (see Note 29).

Goodwill is offset against equity (retained earnings) at the time of its acquisition. The impact of a theoretical capitalization of goodwill with five-year straight-line amortization on the balance sheet and the income statement is shown below:

Theoretical goodwill movement

in CHF thousand	2021	2020
At purchase values		
Opening balance on 1.1	63 021	61 736
Additions	0	1 285
Closing balance on 31.12	63 021	63 021
Depreciation		
Opening balance on 1.1	51 467	44 264
Depreciation for the period	5 430	7 203
Impairment to Paper Division goodwill	4 135	0
Closing balance on 31.12	61 032	51 467
Net book value of goodwill on 1.1	11 554	17 472
Net book value of goodwill on 31.12	1 989	11 554

Impact of goodwill on the income statement

in CHF thousand	2021	2020
Earnings before interest and taxes (EBIT)	-152 667	24 663
EBIT margin in % of net sales	-30.7	5.5
Depreciation of goodwill	-5 430	-7 203
Impairment to Paper Division goodwill	-4 135	0
Theoretical earnings before interest and taxes (EBIT) including depreciation of goodwill	-162 232	17 460
Theoretical EBIT in % of net sales	-32.7	3.9
Net result for the year	-151 410	46 963
Depreciation of goodwill	-5 430	-7 203
Impairment to Paper Division goodwill	-4 135	0
Theoretical net result for the year including depreciation of goodwill	-160 975	39 760

Impact of goodwill on the balance sheet

in CHF thousand	2021	2020
Equity as per balance sheet	310 494	471 867
Equity in % of balance sheet total	55.4	67.0
Theoretical capitalization of net book value of goodwill	1 989	11 554
Theoretical equity including net book value of goodwill	312 483	483 421
Theoretical equity including net book value of goodwill in % of balance sheet total	55.6	67.5

17. Tangible fixed assets

Tangible fixed assets for 2021	Undeveloped land	Developed land and buildings	Plant and equipment	Other facilities and IT HW	Fixtures in rented property	Vehicles	Assets under construction	Total
in CHF thousand								
At purchase values								
Opening balance on 1.1.2021	6 893	332 384	699 794	333 018	7 165	11 006	19 007	1 409 267
Currency impact on opening balance	86	-143	129	-114	37	18	-47	-34
Investments		899	9 073	2 286	22	663	8 209	21 152
Disposals		-17	-4 810	-4 638	-5	-370		-9 840
Reclassifications		1 565	6 531	618		7	-8 721	0
Currency impact on movements		-43	-109	-14			-55	-221
Closing balance on 31.12.2021	6 979	334 645	710 608	331 156	7 219	11 324	18 393	1 420 324
Depreciation								
Opening balance on 1.1.2021	119	153 055	425 134	223 993	2 724	8 943		813 968
Currency impact on opening balance	7	125	7	-104	36	14		85
Depreciation for the period	32	5 035	15 203	5 698	450	595		27 013
Disposals		-17	-4 810	-4 638	-5	-370		-9 840
Reclassifications								0
Currency impact on movements		-13	-96	-9	-1	7		-112
Closing balance on 31.12.2021	158	158 185	435 438	224 940	3 204	9 189	0	831 114
Impairments								
Opening balance on 1.1.2021	0	53 225	138 732	50 779	0	0	0	242 736
Currency impact on opening balance								0
Impairments for the period		54 207	64 992	30 801				150 000
Impairment reversals for the period								0
Disposals								0
Reclassifications								0
Closing balance on 31.12.2021	0	107 432	203 724	81 580	0	0	0	392 736
Opening balance on 1.1.2021	6 774	126 104	135 928	58 246	4 441	2 063	19 007	352 563
Closing balance on 31.12.2021	6 821	69 028	71 446	24 636	4 015	2 135	18 393	196 474

Tangible fixed assets for 2021 include a net book value of CHF 0.3 million for leased assets (vehicles) capitalized through finance leases maturing between 2022 and 2024. Leasing liabilities amount to some CHF 0.3 million, of which CHF 0.2 million are short-term.

The production facilities of the Paper Division were tested for impairment as at 31 December 2021. This resulted in an impairment charge of CHF 150.0 million (see also Note 5).

Investments in the Chemistry Division in 2021 included various expansion projects at the Rütli ZH/CH, Zvornik/BA, Louisville/USA and Lianyungang/CN sites. The Paper Division invested in maintaining and further raising the efficiency of its production plant. In addition to efficiency enhancement and infrastructure modernization projects, the Packaging Division primarily invested a substantial amount in 2021 in its new coating plant in Anápolis/BR.

Tangible fixed assets for 2020	Undeveloped land	Developed land and buildings	Plant and equipment	Other facilities and IT HW	Fixtures in rented property	Vehicles	Assets under construction	Total
in CHF thousand								
At purchase values								
Opening balance on 1.1.2020	5 743	336 824	695 585	329 944	7 290	11 315	16 075	1 402 776
Currency impact on opening balance	-14	-2 347	-4 666	-246	-149	-44	-160	-7 626
Investments	1 050	214	7 529	3 463	25	177	6 031	18 489
Disposals	119	-2 524	-929	-519		-442		-4 295
Reclassifications	0	230	2 319	393			-2 942	0
Currency impact on movements	-5	-13	-44	-17	-1		3	-77
Closing balance on 31.12.2020	6 893	332 384	699 794	333 018	7 165	11 006	19 007	1 409 267
Depreciation								
Opening balance on 1.1.2020	102	151 274	412 399	218 670	2 397	8 816	0	793 658
Currency impact on opening balance	-3	-973	-3 380	-154	-142	-33		-4 685
Depreciation for the period	20	5 139	16 983	6 001	471	600		29 214
Disposals		-2 364	-778	-519		-442		-4 103
Reclassifications								0
Currency impact on movements	0	-21	-90	-5	-2	2		-116
Closing balance on 31.12.2020	119	153 055	425 134	223 993	2 724	8 943	0	813 968
Impairments								
Opening balance on 1.1.2020	0	53 225	138 732	50 779	0	0	0	242 736
Currency impact on opening balance								0
Impairments for the period								0
Impairment reversals for the period								0
Disposals								0
Reclassifications								0
Closing balance on 31.12.2020	0	53 225	138 732	50 779	0	0	0	242 736
Opening balance on 1.1.2020	5 641	132 325	144 454	60 495	4 893	2 499	16 075	366 382
Closing balance on 31.12.2020	6 774	126 104	135 928	58 246	4 441	2 063	19 007	352 563

Tangible fixed assets for 2020 included a net book value of CHF 0.5 million for leased assets (vehicles) capitalized through finance leases maturing between 2021 and 2023. Leasing liabilities amounted to some CHF 0.5 million, of which CHF 0.3 million were short-term.

As at 31 December 2020 there were no indications that any impairment might be required on any production facilities.

18. Long-term financial assets

in CHF thousand	Long-term financial assets
At purchase values	
Opening balance on 1.1.2021	10 000
Investments	0
Disposals	0
Currency impact on movements	0
Closing balance on 31.12.2021	10 000
At purchase values	
Opening balance on 1.1.2020	10 000
Investments	0
Disposals	0
Currency impact on movements	0
Closing balance on 31.12.2020	10 000

As in 2020, the long-term financial assets consist of the 10% equity holding in waste incinerator company Renergia Zentralschweiz AG, Root, with which a supply agreement has been concluded for the provision of low-pressure steam to the Perlen paper factory.

19. Assets from employer contribution reserves and pension schemes

19.1 Pension schemes in Switzerland (542 working insureds)

Employer contribution reserve (ECR) in CHF thousand	Nominal value	Appropriation waiver	Other value adjustments	Discount	Balance sheet	Balance sheet	ECR result in personnel expense	
	31.12.2021	31.12.2021	31.12.2021	31.12.2021	31.12.2021	31.12.2020	2021	2020
Pension schemes	11 301				11 301	11 189	-112	-111
Total	11 301	0	0	0	11 301	11 189	-112	-111

Economic benefit/economic obligation and pension scheme expense in CHF thousand	Funding surplus/shortfall as per Swiss GAAP FER 26	Economic interest of company		Change from prior year or recognized in income statement	Accrued contributions for the period	Pension scheme expense in personnel expense	
	31.12.2021	31.12.2021	31.12.2020	31.12.2021	31.12.2021	2021	2020
CPH Group Pension Scheme							3 800
Pension schemes without funding surplus/shortfall	0	0	0	0	0	0	3 800
CPH Group Pension Scheme	14 737				3 824	3 824	
Pension schemes with funding surplus	14 737	0	0	0	3 824	3 824	0
UBV Uetikon Betriebs- und Verwaltungs AG Staff Welfare Fund (in liquidation)	0						
Perlen Group Assistance Fund	12 867	12 867	11 550	-1 317	0	-1 317	-200
Employers' funds	12 867	12 867	11 550	-1 317	0	-1 317	-200
Total	27 604	12 867	11 550	-1 317	3 824	2 507	3 600

Under the investment regulations of the CPH Group Pension Scheme, the scheme is considered to have a funding surplus if it has a fluctuation reserve amounting to 16.5% or more of its total asset investments (calculated using the Value-at-Risk Method).

The CPH Group Pension Scheme is a defined-contributions pension scheme offering old-age, death and disability benefits. Employer's contributions are strictly defined in the scheme's regulations and deed of trust. The companies concerned do not bear any primary risk, i.e. the insurance and investment risks are borne primarily by the pension scheme itself. Actuarial recalculations are regularly conducted.

The latest static recalculation of actuarial capital was performed as at 31 December 2020, based on an actuarial interest rate of 2.0%, the actuarial foundations of the BVG 2015 Generation Table and a conversion factor of 5.8%. Actuarial capital has since been further developed in line with insuree numbers effective 31 December 2021. In accordance with a board of trustees' resolution of 10 November 2021, the actuarial interest rate was reduced from 2.0% to 1.75% and the scheme newly adopted the currently valid BVG 2020 actuarial foundations. With the exception of the employer contribution reserve of CHF 11.3 million (prior year: CHF 11.2 million), all the scheme's surpluses are payable solely to its beneficiaries. According to its provisional balance sheet, the scheme had a funding ratio of 127% as at 31 December 2021 (prior-year actual funding ratio: 118%).

The UBV Uetikon Betriebs- und Verwaltungs AG Staff Welfare Fund

The UBV Uetikon Betriebs- und Verwaltungs AG Staff Welfare Fund was an employer's fund for all employees at the CPH Group's Uetikon and Rüti sites which provided provident benefits for employees and financial assistance for employees and their families in hardship situations. Contributions to it were made solely by the employer. The Canton Zurich occupational pension law and occupational pension fund supervisory authority approved an application from the Fund's board of trustees for the Fund's liquidation and the transfer of its assets and liabilities to The Perlen Group Assistance Fund, Perlen effective 1 January 2021 in accordance with a corresponding transfer agreement of 18 November 2021. The Fund's freely disposable trust capital (including fluctuation reserves) amounted to CHF 0.0 million on 31 December 2021 (prior year: CHF 0.8 million).

The Perlen Group Assistance Fund, Perlen

The Perlen Group Assistance Fund is an employer's fund for all employees in Switzerland. The Fund provides provident benefits for employees and financial assistance for employees and their families in hardship situations. Contributions to it are made solely by the employer. The Fund can also be used to finance employer's contributions to the occupational pension schemes of the Group's Perlen-based companies. The Fund paid CHF 0.0 million to these schemes for such purposes in 2021 (prior year: CHF 0.0 million). The Fund's freely disposable trust capital (including fluctuation reserves) amounted to CHF 15.3 million on 31 December 2021 (prior year: CHF 13.7 million). As for 2020, economic interest was calculated based on freely disposable trust capital excluding fluctuation reserves.

19.2 Pension schemes outside Switzerland

Economic benefit/ economic obligation	Funding surplus/ shortfall		Economic interest of company		Change from prior year or recognized in income statement	Accrued contributions for the period	Pension scheme expense in personnel expense	
	31.12.2021	31.12.2021	31.12.2020	31.12.2021			31.12.2021	2021
Pension scheme expense in CHF thousand								
USA						427	427	474
Pension schemes without funding surplus/shortfall	0	0	0	0	0	427	427	474
USA	-1 356	-1 356	-1 157	199	0	199	199	479
Pension schemes with funding shortfall	-1 356	-1 356	-1 157	199	0	199	199	479
Total	-1 356	-1 356	-1 157	199	427	626	953	

In the USA the CPH Group has one defined-contributions and one defined-benefits occupational pension scheme.

The 401(k) defined contribution plan is a purely contributions-based savings scheme that does not expose the company to any liability and has neither a surplus nor a shortfall.

The defined-benefits scheme was frozen on 1 January 2016. As a result, there have been no further increases in pension obligations to beneficiaries since this date, and no further beneficiaries have been admitted. The scheme had 97 members as of 31 December 2021 (prior year: 101 members). The scheme currently has a funding shortfall of USD 1 489 000 (prior year: USD 1 309 000). The calculations were made using the Current Liability Method, under which no regard is paid to future salary increases or expected investment returns.

The Group's pension schemes in its other countries of operation are of insignificant size, and provide all the social benefits prescribed by law.

19.3 Breakdown of pension scheme costs

in CHF thousand	In Switzerland	Outside Switzerland	2021	2020
Pension scheme contributions from employers	3 824	427	4 251	4 274
Total contributions	3 824	427	4 251	4 274
+/- changes in ECR through asset development, value adjustments etc.	-112		-112	-111
Contributions and changes in employer contribution reserves	3 712	427	4 139	4 163
Decrease/Increase in companies' economic benefit from funding surplus	-1 317		-1 317	-200
Decrease/Increase in companies' economic obligation towards funding shortfall		199	199	479
Change in economic impact on companies of funding surpluses/shortfalls	-1 317	199	-1 118	279
Pension scheme expense as part of personnel expense for the period	2 395	626	3 021	4 442

20. Other long-term receivables

Other long-term receivables consist of a CHF 21.1 million (prior year: CHF 29.6 million) remaining receivable from Canton Zurich in connection with the sale in 2016 of the former Uetikon operating site and the cost of cleaning up the adjacent lake bed (a total of CHF 32.0 million was originally retained in this regard from the sale proceeds of CHF 52.0 million). Following a downward adjustment of the originally estimated CPH share of the lake bed clean-up costs from CHF 32 million to CHF 20 million in May 2020, some CHF 12 million should be returned to CPH after the project's completion in 2024. For further information see also Notes 26 and 28 on short-term and long-term provisions. The use of CHF 6.0 million of provisions expected in the following year (prior year: CHF 1.4 million) was reclassified as other short-term receivables.

21. Deferred tax assets

The deferred tax assets for 2021 stem primarily from temporary differences deriving from an intragroup real estate transaction in 2020, which resulted in deferred tax assets of CHF 11.9 million. The remaining CHF 1.2 million (prior year: CHF 0.5 million) of this item relates to further temporary differences arising from deviations between the group consolidated value and the tax value of assets, equity and liabilities.

22. Trade accounts payable

in CHF thousand	2021	2020
To third parties	84 775	56 742
To related parties and companies	12	9
Total	84 787	56 751

Trade accounts payable increased in 2021 owing to the higher product demand and the substantial rises in raw materials prices.

23. Other payables

in CHF thousand	2021	2020
To third parties	3 920	4 576
To related parties and companies	0	0
Total	3 920	4 576

The change in other payables for 2021 is due to lower customer prepayments in the Chemistry Division.

24. Accrued liabilities and deferred income

in CHF thousand	2021	2020
Accrued interest expense	433	495
Income tax owed	1 266	1 561
Accrued personnel expense	5 992	6 508
Other accrued liabilities and deferred income	10 572	8 251
Total	18 263	16 815

25. Short-term financial liabilities

in CHF thousand	2021	2020
Towards third parties	3 227	8 088
– towards banks	3 000	7 818
– financial leasing liabilities	227	270
Total	3 227	8 088

Details of short-term financial liabilities are shown in Note 27.

26. Short-term provisions

in CHF thousand	Environmental protection measures	Restructuring provisions	Guarantee obligations	Other provisions	Total short-term provisions
Opening balance on 1.1.2020	2 579	477	766	0	3 822
Currency impact on opening balance			–2		–2
Additions			711		711
Use	–556	–37	–207		–800
Releases	–2 023		–302		–2 325
Reclassifications	1 925				1 925
Currency impact on movements					0
Closing balance on 31.12.2020	1 925	440	966	0	3 331
Opening balance on 1.1.2021	1 925	440	966	0	3 331
Currency impact on opening balance			–1		–1
Additions			242		242
Use	–3 636	–93	–199		–3 928
Releases			–57		–57
Reclassifications	7 786				7 786
Currency impact on movements			–5		–5
Closing balance on 31.12.2021	6 075	347	946	0	7 368

The environmental protection measures relate to the lake bed clean-up at the former Uetikon site and to future waste disposal site obligations (see Note 28 for further details). The provisions for the clean-up of the Rotholz waste disposal site in Meilen were released in 2020.

The restructuring provisions relate to the closure of the Uetikon site (and the associated lake bed clean-up).

The guarantee obligations stem from the Paper and Packaging divisions, and relate to any claims or entitlements arising from customer complaints.

27. Long-term financial liabilities

2021 in CHF thousand	Current + 1 year	Current + 2 years	Current + 3 years	Current + 4 years	Current + 5 years	After + 5 years	Total 2021
Long-term bank loans	6 500						6 500
Corporate bond ¹⁾	100 000						100 000
Financial leasing liabilities	79	16					95
Total	106 579	16	0	0	0	0	106 595

¹⁾ unsecured bond, SIX Swiss Exchange 'CPH18', issued 12.10.2018

2020 in CHF thousand	Current + 1 year	Current + 2 years	Current + 3 years	Current + 4 years	Current + 5 years	After + 5 years	Total 2020
Long-term bank loans	3 000	6 500					9 500
Corporate bond ¹⁾		100 000					100 000
Financial leasing liabilities	164	82					246
Total	3 164	106 582	0	0	0	0	109 746

¹⁾ unsecured bond, SIX Swiss Exchange 'CPH18', issued 12.10.2018

Financial liabilities for 2021

Instrument	Currency	Amount in currency (thousand)	Amount in CHF (thousand)	Interest rate	Duration	Covenants
Short-term financial liabilities						
Bank loan	CHF		1 500	2.41	30.06.2022	¹⁾
Bank loan	CHF		1 500	2.41	31.12.2022	¹⁾
Financial leasing liabilities	CHF	227		–	various	
Total			3 227			
Long-term financial liabilities						
Corporate bond	CHF		100 000	2.00	12.10.2023	
Bank loan	CHF		6 500	2.41	20.03.2023	¹⁾
Financial leasing liabilities	CHF	95		–	various	
Total			106 595			
Total financial liabilities			109 822			

¹⁾ Repayment in steps; debt ratio max. 2.5 (from 31.12.2019). The debt ratio is calculated as follows: total financial liabilities/EBITDA for the Packaging Division for the last 12 months. This requirement was still being met as of 31.12.2021.

The CPH Group also has an additional CHF 40 million credit facility with Swiss banks (until 2022/23).

Financial liabilities for 2020

Instrument	Currency	Amount in currency (thousand)	Amount in CHF (thousand)	Interest rate	Duration	Covenants
Short-term financial liabilities						
Bank loan	CHF		1 500	2.41	30.06.2021	¹⁾
Bank loan	CHF		1 500	2.41	31.12.2021	¹⁾
Bank loan (PPPA Paycheck Protection Program loan, SBA USA)	USD	1 550	1 370	1.25	open	
Industrial bond	USD	3 900	3 448	4.44	01.08.2021	
Financial leasing liabilities	CHF		270	–	various	
Total			8 088			
Long-term financial liabilities						
Corporate bond	CHF		100 000	2.00	12.10.2023	
Bank loan	CHF		9 500	2.41	20.03.2023	¹⁾
Financial leasing liabilities	CHF		246	–	various	
Total			109 746			
Total financial liabilities			117 834			

¹⁾ Repayment in steps; debt ratio max. 2.5 (from 31.12.2019). The debt ratio is calculated as follows: total financial liabilities/EBITDA for the Packaging Division for the last 12 months. This requirement was still being met as of 31.12.2020.

28. Long-term provisions

in CHF thousand	Major repairs and renovations	Environmental protection measures	Other provisions	Deferred tax liabilities	Total long-term provisions
Opening balance on 1.1.2020	3 702	35 156	1 943	6 667	47 468
Currency impact on opening balance			–1	–72	–73
Additions				339	339
Use		–294			–294
Releases		–12 000	–1 755	–227	–13 982
Reclassifications		–1 925			–1 925
Currency impact on movements			–1	1	0
Closing balance on 31.12.2020	3 702	20 937	186	6 708	31 533
Opening balance on 1.1.2021	3 702	20 937	186	6 708	31 533
Currency impact on opening balance			–8	–84	–92
Additions			8	632	640
Use					0
Releases			–154	–23	–177
Reclassifications		–7 786			–7 786
Currency impact on movements			6	1	7
Closing balance on 31.12.2021	3 702	13 151	38	7 234	24 125

The provisions for major repairs and renovations relate to the work required on the Perlen weir. The corresponding project has been approved by Canton Lucerne, enabling the work to be performed in the next few years.

Environmental risks arise as a result of the Group's business activities.

In connection with the CHF 52.0 million sale of the Uetikon operating site in 2016, provisions of CHF 32.0 million (80% of the CHF 40.0 million estimated total costs) were made at the time for CPH's share in the expense of cleaning up the adjacent lake bed. The remaining 20% of these costs are being met by Canton Zurich. Since the site's sale was concluded, a pilot project and inspections were conducted for the planned lake bed clean-up between 2016 and 2018. A tender invitation for the clean-up work was issued in 2019, and a study was also commissioned on the options available. In May 2020 Canton Zurich awarded the commission for the work to a general contractor. As a result of this, the Canton now expects the total cost of this work to be CHF 25.0 million, of which 80% or CHF 20.0 million will be borne by the CPH Group. In view of this, the corresponding provisions were reduced by CHF 12.0 million, in the form of extraordinary income, in May 2020. The clean-up work commenced in November 2021, and will take around two to three years. The corresponding provisions amounted to CHF 15.4 million at the end of 2021 (prior year: CHF 19.0 million), of which CHF 6.0 million are short-term provisions and CHF 9.4 million are long-term provisions.

The further CHF 3.8 million of provisions for environmental protection measures (CHF 0.1 million short-term, CHF 3.7 million long-term) relate to future waste disposal site running cost obligations and a possible transfer thereof to the Canton Zurich Waste Disposal Site Aftercare Fund.

'Other provisions' include provisions for personnel-related obligations in Germany.

All provision amounts expected to be paid in the following year are reclassified as short-term provisions (see Note 26).

29. Purchase of business activities and minority shareholdings

The CPH Group acquired no significant business activities in 2021.

In the previous year Perlen Packaging AG had acquired the remaining 40% of the capital of Perlen Packaging Anápolis Indústria e Comércio Ltda., Anápolis, State of Goia (Brazil) on 4 December 2020. The consideration amounted to CHF 1.6 million, of which CHF 0.3 million was taken to minorities and CHF 1.3 million to goodwill.

30. Additional corporate governance information

30.1 Capital structure

	2021	2020
Share capital in CHF thousand	1 200	1 200
Registered shares issued	6 000 000	6 000 000
Nominal value per share in CHF	0.2	0.2
Market capitalization in CHF thousand	366 000	435 600

The registered shares of CPH Chemie + Papier Holding AG are listed on the SIX Swiss Exchange in the Swiss Reporting Standard segment. The company's share capital amounts to CHF 1.2 million and is fully paid in. The share capital consists of 6 000 000 registered shares with a nominal value of CHF 0.20 each.

30.2 Transactions with related parties and companies

All balances and business transactions between companies within the scope of consolidation were eliminated during consolidation and are not shown here. As in the previous year, all transactions with related parties and companies in 2021 were conducted at market rates. The following transactions were effected for services rendered with companies associated with the CPH Group and members of its Board of Directors:

in CHF thousand	2021	2020
UBV Immobilien Treuhand Perlen AG, Root		99
UBV Immobilien Treuhand AG, Uetikon	12	0
Niederer Kraft Frey AG (Manuel Werder)	56	20
Weber Schaub & Partner (Peter Schaub)	66	42
Total transactions	134	161
Total open liabilities at year-end	12	9

As in the previous year, no loans or credits were granted to related parties in 2021.

UBV Immobilien Treuhand Perlen AG, Root/CH was integrated into CPH Immobilien AG, Root/CH by merger on 22 November 2021.

Uetikon Industrieholding AG, which had previously been the main shareholder of CPH Chemie + Papier Holding AG with a holding of 49.99%, was acquired by the latter through a merger by absorption effective 11 June 2021. Under the merger transaction, the previous shareholders of Uetikon Industrieholding AG exchanged their shares therein for a commensurate number of shares of CPH Chemie + Papier Holding AG, and have thence held direct CPH shareholdings. Under the merger agreement, further assets and liabilities of a net value of CHF 0.2 million were also acquired for a payment of CHF 0.2 million.

30.2.1 Shares held by members of the Board of Directors and Group Executive Management

Shares held by members of the Board of Directors (including related parties):

Number of shares	2021			2020
	Own	Related parties	Total	
Member				
Peter Schaub	833	1 233	2 066	400
Tim Talaat	10 806	134 736	145 542	52 216
Manuel Werder	34 698	93 649	128 347	50 020
Christian Wipf	400	0	400	400
Total	46 737	229 618	276 355	103 036

Shares held by members of Group Executive Management (including related parties):

Number of shares	2021 shares vested until			
	2023	2024	2021	2020
Member				
Peter Schildknecht	793	894	1 887	993
Gerold Brüttsch	0	0	0	0
Klemens Gottstein	397	447	844	397
Wolfgang Grimm	397	447	904	457
Richard Unterhuber	397	447	1 094	647
Alois Waldburg-Zeil	397	447	1 244	797
Total	2 381	2 682	5 973	3 291

CPH Chemie + Papier Holding AG introduced a long-term incentive (LTI) programme for the members of its Group Executive Management in 2020. The general contractual foundations and the vesting conditions thereof are detailed in the Remuneration Report. A total of 2 682 shares (prior year: 2 381 shares) with a vesting period of three years were awarded under the programme in 2021.

30.2.2 Significant shareholders and numbers of shares held

Name	2021	2020
Uetikon Industrieholding AG		2 999 800
Swiss Industrial Finance AG*	889 946	90 000
Ella Schnorf-Schmid estate*	1 124 989	429 320
J. Safra Sarasin Investmentfonds AG	300 250	300 250
Total	2 315 185	3 819 370

* linked through a shareholders' agreement

31. Net financial liabilities

in CHF thousand	2021	2020
Liquid funds and securities	95 116	116 285
Short-term financial receivables	75	0
Total liquid funds and financial receivables	95 191	116 285
Short-term financial liabilities to banks	3 000	7 818
Short-term financial leasing and other liabilities	227	270
Total short-term financial liabilities	3 227	8 088
Corporate bonds	100 000	100 000
Long-term financial liabilities to banks	6 500	9 500
Long-term financial leasing and other liabilities	95	246
Total long-term financial liabilities	106 595	109 746
Net debt	14 631	1 549
EBITDA	25 718	55 151
Net debt to EBITDA ratio	0.6	0.0

32. Contingent liabilities and off-balance-sheet business

32.1 Contingent liabilities

As in the prior year, there were no guarantees towards third parties as of 31 December 2021.

32.2 Pledged assets

Real estate of Jiangsu Zeochem Technology Co. Ltd., China with a book value of CHF 3.3 million (prior year: CHF 3.2 million) was subject to a CHF 3.1 million (prior year: CHF 3.0 million) lien as at 31 December 2021. Liquid funds with a value of CHF 0.6 million (prior year: CHF 0.7 million) are pledged.

32.3 Other off-balance-sheet obligations

Operating lease agreements with notice periods of more than one year amounted to CHF 0.9 million (prior year: CHF 0.8 million), and relate mainly to vehicle leases. They show the following maturities:

in CHF thousand	2021	2020
Less than 1 year	549	421
1 to 5 years	340	330
More than 5 years	0	0
Total	889	751

Off-balance-sheet obligations relating to rental agreements amounted to CHF 6.1 million (prior year: CHF 4.0 million), and relate largely to rental agreements in Rüti (Switzerland), Utzenstorf (Switzerland), Whippany (USA) and Anápolis (Brazil). They show the following maturities:

in CHF thousand	2021	2020
Less than 1 year	1 368	1 159
1 to 5 years	4 102	2 788
More than 5 years	631	100
Total	6 101	4 047

Purchase obligations for the acquisition of tangible fixed assets and intangible assets totalled CHF 19.0 million as at 31 December 2021 (prior year: CHF 12.3 million).

32.4 Derivative financial instruments and foreign-currency hedges

As in the prior year, no derivative financial instruments subject to balance sheet reporting were held as at 31 December 2021.

Open foreign-currency hedges as at 31 December 2021

in CHF thousand		2021			2020			
Instrument	Contract value	Positive replacement value	Negative replacement value	Purpose	Contract value	Positive replacement value	Negative replacement value	Purpose
Forward foreign-exchange contracts in EUR	100 932	3 685	0	Cash flow hedge	91 888	0	1 392	Cash flow hedge
Forward foreign-exchange contracts in USD	7 594	20	79	Cash flow hedge	9 726	533	0	Cash flow hedge
Total	108 526	3 705	79	Cash flow hedge	101 614	533	1 392	Cash flow hedge

The open foreign-currency hedges are forward contracts designed to secure future cash flows.

33. Net result per share

Net result per share is calculated by dividing the net result for the year by the average number of shares entitled to dividend issued, less any treasury shares. The company held an average of 188 treasury shares in 2021 (prior year: 474 shares). Since no authorized or conditional capital is currently outstanding, diluted net result per share is identical to the net result per share amount.

	2021	2020
Net result as per consolidated income statement (in CHF thousand) after minorities	-151 559	46 901
Weighted average number of shares entitled to dividend	5 999 812	5 999 526
Net result per share (in CHF)	-25.26	7.82

34. Treasury shares

	2021			2020		
	Number	Transaction price (CHF)	Value (CHF thousand)	Number	Transaction price (CHF)	Value (CHF thousand)
Opening balance on 1.1	376	72.61	27	572	79.20	45
Purchased	5 593	70.45	394	21 438	71.97	1 543
Sold	3 287	71.49	-235	19 253	70.38	-1 355
Share-based compensation	2 682	66.80	-180	2 381	75.75	-180
Profit/loss			-6			-26
Closing balance on 31.12	0		0	376	72.61	27

The company held no treasury shares at the end of 2021 (prior year: 376 shares).

A total of 5 593 treasury shares were purchased on the SIX Swiss Exchange in the course of 2021 (prior year: 21 438 shares) at an average purchase price of CHF 70.45 (prior year: CHF 71.97) per share. A total of 3 287 treasury shares were sold via the SIX Swiss Exchange in the course of 2021 (prior year: 19 253 shares) at an average sale price of CHF 71.49 (prior year: CHF 70.38) per share. A total of 2 682 shares with a vesting period of three years were awarded in 2021 in the form of share-based compensation.

35. Subsequent events

No significant events occurred between 31 December 2021 and 11 February 2022 which would require adjustments to the book values of the Group's assets, equity and liabilities or would need to be divulged here. There are also no exceptional pending business items or risks which would need to be mentioned in the income statement.

In response to a cyber attack, the IT systems of the CPH Group were shut down in a controlled manner on 7 January 2022 and production had to be halted at the Perlen and Müllheim sites. Once the key IT systems were back in operation, production was resumed at the sites concerned in the course of 13 January 2022. The CPH Group does not expect this incident to have any material impact on its 2022 business results.

The Board of Directors approved these consolidated financial statements at its meeting of 11 February 2022. They are also subject to the approval of the Ordinary General Meeting of 17 March 2022.

List of major shareholdings

	Registered office	Currency	Capital in thousand	Consolidation in %	Consolidation method
CPH Chemie + Papier Holding AG	Root/CH	CHF	1 200	100	F
CPH Immobilien AG	Root/CH	CHF	500	100	F

Consolidated Chemistry companies:

Zeochem AG	Rüti ZH/CH	CHF	1 000	100	F
Zeochem L.L.C.	Louisville/USA	USD	36 547	100	F
Zeochem d.o.o.	Zvornik/BA	BAM	2	100	F
Jiangsu Zeochem Technology Co. Ltd.	Lianyungang/CN	CNY	90 000	92	F
Zeochem Pte. Ltd.	Singapore/SG	SGD	1	100	F

Consolidated Paper companies:

Perlen Papier AG	Root/CH	CHF	81 000	100	F
Perlen Papier Immobilien AG	Root/CH	CHF	1 000	100	F
APS Altpapier Service Schweiz AG	Root/CH	CHF	100	100	F
Perlen Deutschland GmbH	Munich/D	EUR	100	100	F

Consolidated Packaging companies:

Perlen Packaging AG, Perlen	Root/CH	CHF	24 000	100	F
Perlen Packaging L.L.C.	Whippany/USA	USD	1 000	100	F
Perlen Packaging GmbH, Müllheim	Müllheim/D	EUR	1 300	100	F
Perlen Packaging (Suzhou) Co., Ltd.	Suzhou/CN	USD	13 000	100	F
Perlen Packaging Anápolis Indústria e Comércio Ltda.	Anápolis/BR	BRL	2 464	100	F

Consolidation method:

F = fully consolidated

Changes in the scope of consolidation for 2021:

- CPH Immobilien AG, Root/CH was founded on 29 April 2021.
- UBV Immobilien Treuhand Perlen AG, Root/CH was acquired with the Uetikon Industrieholding AG merger of 11 June 2021. The assets, equity and liabilities of this company were then integrated into CPH Immobilien AG, Root/CH by merger on 22 November 2021.

Changes in the scope of consolidation for 2020:

- The remaining 40% of the capital of Perlen Packaging Anápolis Indústria e Comércio Ltda., Anápolis, State of Goia (Brazil), was acquired on 4 December 2020.
- Perlen Papier Immobilien AG, Root/CH was founded on 7 December 2020.

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of CPH Chemie+Papier Holding AG and its subsidiaries (the Group), which comprise the consolidated income statement for the year ended 31 December 2021, consolidated balance sheet as at 31 December 2021, consolidated cash flow statement and consolidated statement of changes in equity for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements (pages 52 to 80) give a true and fair view of the consolidated financial position of the Group as at 31 December 2021 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Swiss GAAP FER and comply with Swiss law.

Basis for opinion

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements" section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our audit approach



Overview

Overall Group materiality: CHF 5 000 000

Full scope audit work was concluded at six Group companies in four countries. For two additional companies, specified audit procedures were performed. Our audit scope addressed 90% of the net sales of the Group.

Additionally, we concluded reviews at a further two Group companies, which represented an additional 7% of the net sales of the Group.

As key audit matters the following areas of focus have been identified:
Impairment testing of fixed assets of Perlen Papier
Assessment of the adequacy of the provisions for environmental measures.

Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall Group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the consolidated financial statements as a whole.

Overall Group materiality

CHF 5 000 000

Benchmark applied

Net sales

Rationale for the materiality benchmark applied

We chose net sales as the benchmark because, in our view, it is an appropriate benchmark given the Group's volatile earnings performance in recent years, and it is a generally accepted benchmark for materiality considerations.

Audit scope

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The audit strategy for the audit of the consolidated financial statements was determined taking into account the work performed by the Group auditor and the component auditors from the PwC network and from a third party. Where audits were performed by component auditors, we ensured that, as Group auditor, we were sufficiently involved in the audit in order to assess whether sufficient appropriate audit evidence was obtained from the work of the component auditors to provide a basis for our opinion. The involvement of the Group

auditor was based on audit instructions and standardised reporting. In addition, it included telephone conferences with the component auditors and participation in audit discussions for selected components in which local management, the local auditor and selected Group representatives also participated.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Impairment testing of fixed assets of Perlen Papier

Key audit matter

The business environment of the Paper Division continues to be challenging and volatile. Owing to the sustained deterioration in profitability in the 2021 financial year, fixed assets of Perlen Papier were tested for impairment. This test showed that the carrying value of fixed assets to date was not covered by the net selling price or the value in use of the assets and, therefore, an impairment loss of CHF 150 million was recorded. As a result, the carrying value of the fixed assets concerned has been reduced to the recoverable value.

In view of the size of the assets and the significant scope for judgement in estimating the net selling value and future cash flows that can be achieved with these assets, we consider the impairment testing of fixed assets of Perlen Papier as a key audit matter.

Please refer to notes 5, 16 and 17 in the notes to the consolidated financial statements.

How our audit addressed the key audit matter

We performed the following audit procedures with regard to the impairment testing of fixed assets of Perlen Papier:

- Inspection of the minutes of meetings of the Board of Directors and its committees.
- Discussion of the impairment tests with Management and with the Finance and Auditing Committee of the Board of Directors.
- Plausibility check of the value in use calculated by Management, in particular the assumptions used for sales trends, costs and margins, and the discount rate. Comparison of the assumptions used in the prior year's impairment tests with the actual results achieved in the year under review to determine, in hindsight, how accurate planning had been in the past.
- Check of the estimated net market value by examining the valuation reports of a real estate specialist and comparing the assumptions used with our own experience with the help of our specialists.
- Assessment of the presentation and disclosure in the consolidated financial statements.

On the basis of our audit results, we consider the impairment test and the presentation of the impairment in the consolidated financial statements by Management to be reasonable.

Assessment of the adequacy of the provisions for environmental measures

Key audit matter

As at the balance sheet date, short-term and long-term provisions for environmental measures amounting to CHF 19 million have been recognised in connection with the closure and disposal of the production site at Uetikon and the obligation to decontaminate and absorb the costs of various landfills and properties.

In view of the magnitude of the future costs of the environmental measures and the significant estimates involved in calculating them, we consider the completeness and accuracy of these provisions as a key audit matter.

Information regarding the provisions for environmental measures can be found in notes 26 and 28 of the notes to the consolidated financial statements.

How our audit addressed the key audit matter

We performed the following audit procedures:

- Discussions with Management and the Finance and Auditing Committee.
- Review and assessment of Management memos and file notes concerning the amount of provisions recognised.
- Sample-based testing of the calculations of and the assumptions relating to the cost estimates of the environmental measures.
- Inspection of the contract awards, expert opinions and bids on which the calculations are based and of the correspondence, meeting minutes and cost overviews of the joint working group set up with the environmental authority of the Canton of Zurich.
- Assessment of whether the disclosure of the provisions complies with the requirements of Swiss GAAP FER.

On the basis of our audit results, we consider the approach chosen by Management for recording the provisions for environmental measures and the corresponding disclosures to be reasonable.

Responsibilities of the Board of Directors for the consolidated financial statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with Swiss GAAP FER and the provisions of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTSuisse: <http://expertsuisse.ch/en/audit-report-for-public-companies>. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG



Thomas Illi
Audit expert
Auditor in charge



Josef Stadelmann
Audit expert

Zürich, 11 February 2022

Income statement

in CHF thousand	Note	2021	2020
Net revenue from sale of goods and services	2.1	5 068	4 930
Other income		325	322
Personnel expense		-3 475	-3 246
Other operating expense		-2 139	-1 857
Additions of impairment losses on non-current assets	2.2	-77 440	0
Impairment reversals on non-current assets	2.2	15 258	0
Earnings before interest and taxes (EBIT)		-62 403	149
Financial income		18 206	16 928
– Income from investments	2.3	13 300	12 197
– Interest income	2.4	4 772	4 726
– Book gains on securities held		17	0
– Other financial income	2.5	117	5
Financial expense		-2 209	-2 553
– Interest expense	2.6	-2 067	-2 018
– Book losses on securities held		0	-5
– Other financial expense	2.7	-142	-530
Earnings before taxes and extraordinary items		-46 406	14 524
Extraordinary, non-recurring or prior-period income	2.8	0	0
Extraordinary, non-recurring or prior-period expense	2.8	0	0
Earnings before taxes (EBT)		-46 406	14 524
Direct taxes		-173	-189
Profit/Loss for the year		-46 579	14 335

Balance sheet

in CHF thousand	Note	31.12.2021	31.12.2020
Assets			
Cash and cash equivalents and assets held for short-term disposal with a quoted market price	2.9	32 624	52 176
Other short-term receivables	2.10	4 569	4 398
– From third parties		4 413	4 398
– From group member companies		156	0
Prepaid expenses and accrued income		0	0
Short-term financial receivables		0	0
Total current assets		37 193	56 574
Financial assets		359 677	336 099
– Long-term receivables from third parties		0	0
– Long-term receivables from group member companies	2.11	359 677	336 099
Investments	2.12	88 671	150 254
Property, plant and equipment		432	395
Total non-current assets		448 780	486 748
Total assets		485 973	543 322
Equity and liabilities			
Trade payables		287	46
– To third parties		287	46
– To group member companies		0	0
Short-term interest-bearing liabilities		59	21
– Towards third parties		59	21
– Towards group member companies		0	0
Other short-term liabilities		1	1
– Towards third parties	2.13	1	1
– Towards group member companies		0	0
Accrued expenses and deferred income	2.14	1 187	1 347
Total short-term liabilities		1 534	1 415
Long-term interest-bearing liabilities		100 000	100 000
– Corporate bond	2.15	100 000	100 000
– Towards group member companies		0	0
Total long-term liabilities		100 000	100 000
Total liabilities		101 534	101 415
Share capital	2.16	1 200	1 200
Legal capital reserves	2.17	7	4 207
– Capital contribution reserve		7	4 207
Legal retained earnings		10 016	10 016
Voluntary retained earnings		419 795	412 176
Earnings available for distribution		–46 579	14 335
– Balance brought forward from prior year		0	0
– Profit/Loss for the year		–46 579	14 335
Treasury shares	2.18	0	–27
Total equity		384 439	441 907
Total equity and liabilities		485 973	543 322

Additional information

1. Valuation principles used

These financial statements have been compiled in accordance with the provisions on business bookkeeping and accounting specified in the Swiss Code of Obligations (Article 957ff). The major balance sheet items have been capitalized as described below:

No cash flow statement or certain additional notes

Since CPH Chemie + Papier Holding AG provides consolidated financial statements in accordance with recognized (Swiss GAAP FER) accounting standards, it has – as permitted under the relevant legal provisions – elected not to provide details of auditors' fees or a cash flow statement in the present accounts.

Financial assets and investments

Financial assets are stated at their nominal value less any value adjustments required. Investments are stated at their purchase price less value adjustments. Investments are valued individually if they are material, and are not usually grouped together for such valuation because of any similarity.

Treasury shares

Treasury shares are shown at their original purchase price. The treasury shares held are shown as a negative item in equity. If they are later sold, the resulting profit or loss is taken directly to voluntary retained earnings.

Share-based compensation

Share-based compensation is valued at the share price applicable on the shares' assignment, and is shown under both equity and personnel expense. The definitively assigned shares are subject to a three-year vesting period, during which the number of shares assigned is not contingent on any further performance, results or other vesting conditions.

Foreign currency positions

Foreign currency positions have been translated into Swiss francs at the following conversion rates:

Foreign currency	2021 income statement	2021 balance sheet	2020 income statement	2020 balance sheet
EUR	1.0810	1.0360	1.0710	1.0820
USD	0.9140	0.9110	0.9380	0.8840

The balance sheet conversion rates are the rates that ruled on the balance sheet date of 31 December, while the conversion rates used for the income statement are the average rates for the full financial year.

2. Notes on the financial statements

CPH Chemie + Papier Holding AG domiciled in Root

The company employed an average of six persons in 2021 (prior year: six persons) in full-time-equivalent terms.

2.1 Net revenue from sale of goods and services

The CHF 5.1 million in this item (prior year: CHF 4.9 million) represents the net revenue from goods and services provided to subsidiaries by the holding company and invoiced accordingly.

2.2 Additions/Reversals of impairment losses on non-current assets

An impairment of CHF 77.4 million was effected in 2021 to the investment in Perlen Papier AG, Root/CH in view of its negative equity development following an impairment to its fixed assets. At the same time, CHF 15.3 million of a previous impairment to the investment in Zeochem AG, Rüti ZH/CH was reversed in view of positive business developments. There had been no such adjustments in 2020.

2.3 Income from investments

This item includes the profit distributions by subsidiaries.

2.4 Interest income

Interest income derives predominantly from intercompany loans. For 2021, these were subject to interest rates of between 1.00% and 2.25% (prior year: between 1.00% and 2.25%).

2.5 Other financial income

This item consists primarily of income from the net positive impact of currency movements on foreign-currency amounts held.

2.6 Interest expense

This item consists largely of the CHF 2.0 million (prior year: CHF 2.0 million) interest paid on the CHF 100 million 2.00% corporate bond (duration 12 October 2018 to 12 October 2023).

2.7 Other financial expense

Other financial expense for 2021 consisted largely of ordinary financial expense of CHF 0.1 million (prior year: CHF 0.1 million). Other financial expense for 2020 additionally included currency losses of CHF 0.4 million.

2.8 Extraordinary, non-recurring or prior-period income and expense

No such amounts were earned or incurred in 2021 or 2020.

2.9 Cash and cash equivalents and assets held for short-term disposal with a quoted market price

in CHF thousand	2021	2020
Cash and cash equivalents	32 592	52 156
Assets held for short-term disposal with a quoted market price	32	20
Total	32 624	52 176

2.10 Other short-term receivables

Other short-term receivables consisted largely of value-added tax credits in both 2021 and 2020.

2.11 Long-term receivables from group member companies

Long-term receivables from group member companies increased by a net CHF 23.6 million to CHF 359.7 million in 2021 as a result of investment needs.

2.12 Investments

Name and legal form	Domicile	Remarks	Currency	Holding in 2021		Holding in 2020	
				Capital in thousand	Capital/Voting rights	Capital in thousand	Capital/Voting rights
CPH Immobilien AG ¹⁾	Root/CH	Founded 29.4.2021	CHF	500	100 %		
Zeochem AG ¹⁾	Rüti ZH/CH		CHF	1 000	100 %	1 000	100 %
Zeochem L.L.C.	Louisville/USA		USD	36 547	100 %	36 547	100 %
Jiangsu Zeochem Technology Co. Ltd. ¹⁾	Lianyungang/CN		CNY	90 000	92 %	90 000	92 %
Zeochem d.o.o.	Zvornik/BA	Transferred 2021 to Zeochem AG	EUR	2	100 %	2	100 %
Perlen Papier AG ¹⁾	Root/CH		CHF	81 000	100 %	81 000	100 %
Perlen Papier Immobilien AG	Root/CH		CHF	1 000	100 %	1 000	100 %
APS Altpapier Service Schweiz AG	Root/CH		CHF	100	100 %	100	100 %
Perlen Deutschland GmbH	Munich/D		EUR	100	100 %	100	100 %
Perlen Packaging AG, Perlen ¹⁾	Root/CH		CHF	24 000	100 %	24 000	100 %
Perlen Packaging GmbH, Müllheim	Müllheim/D		EUR	1 300	100 %	1 300	100 %
Perlen Packaging L.L.C.	Whippany/USA		USD	1 000	100 %	1 000	100 %
Perlen Packaging (Suzhou) Co., Ltd.	Suzhou/CN		USD	13 000	100 %	13 000	100 %
Perlen Packaging Anápolis Indústria e Comércio Ltda.	Anápolis/BR		BRL	2 464	100 %	2 464	100 %

¹⁾ Directly held by CPH Chemie + Papier Holding AG

CPH Immobilien AG, Root/CH was founded on 29 April 2021. UBV Immobilien Treuhand Perlen AG was acquired with the merger of Uetikon Industrieholding AG of 11 June 2021. CPH Immobilien AG, Root/CH integrated the assets, equity and liabilities of UBV Immobilien Treuhand Perlen AG in a merger of 22 November 2021. Zeochem d.o.o., Zvornik/BA was transferred by CPH Chemie + Papier Holding AG to its subsidiary Zeochem AG, Rüti ZH/CH at book value in the course of 2021. There were no changes in 2020 to CPH Chemie + Papier Holding AG's directly held investments.

An impairment of CHF 77.4 million was effected in 2021 to the investment in Perlen Papier AG, Root/CH. At the same time, CHF 15.3 million of a previous impairment to the investment in Zeochem AG, Rüti ZH/CH was released from hidden reserves (see also Note 2.2).

2.13 Liabilities towards pension schemes

As in the previous year, there were no liabilities towards pension schemes as at 31 December 2021.

2.14 Accrued expenses and deferred income

Accrued expenses and deferred income for 2021 included accrued interest on corporate bonds of CHF 0.4 million (prior year: CHF 0.4 million), accruals on employees' salary and vacation entitlements of CHF 0.5 million (prior year: CHF 0.6 million) and pending tax payments and miscellaneous amounts of CHF 0.3 million (prior year: CHF 0.3 million).

2.15 Corporate bond

This item relates to the CHF 100.0 million 2.00% unsecured corporate bond (SIX code CPH18) issued on 12 October 2018 and maturing on 12 October 2023. The bond is listed on the SIX Swiss Exchange.

2.16 Share capital

Share capital consists of 6 000 000 registered shares with a nominal value of CHF 0.20 per share.

Uetikon Industrieholding AG, which had previously been the main shareholder of CPH Chemie + Papier Holding AG with a holding of 49.99%, was acquired by the latter through a merger by absorption effective 11 June 2021. Under the merger transaction, the previous shareholders of Uetikon Industrieholding AG exchanged their shares therein for a commensurate number of shares of CPH Chemie + Papier Holding AG, and have thence held direct CPH shareholdings. For the shares held by members of the Board of Directors and other significant shareholders, please see Note 30.2 in the 'Additional information on the consolidated financial statements'.

2.17 Legal capital reserves

The capital contribution reserve derives from the reduction in the nominal value of the CPH share in 2018. Following a distribution to shareholders, it was reduced in 2021 to a small remaining amount.

2.18 Treasury shares (and share-based compensation)

CPH Chemie+Papier Holding AG held no treasury shares at the end of 2021 (prior year: 376 shares, acquired at an average purchase price of CHF 72.61 per share). A total of 5 593 treasury shares were purchased on the SIX Swiss Exchange in the course of 2021 (prior year: 21 438 shares) at an average purchase price of CHF 70.45 (prior year: CHF 71.97) per share, and a total of 3 287 treasury shares were sold via the SIX Swiss Exchange in the course of 2021 (prior year: 19 253 shares) at an average sale price of CHF 71.49 (prior year: CHF 70.38) per share. A further 1 341 shares of a total value of CHF 0.09 million (prior year: CHF 0.09 million) were assigned to members of the management of CPH Chemie+Papier Holding AG; and a further 1 341 shares of a total value of CHF 0.09 million (prior year: CHF 0.09 million) were sold to subsidiaries for such assignment to their management members.

Guarantees to third parties

Contingent liabilities amount to CHF 31.5 million (prior year: CHF 37.9 million), of which CHF 21.5 million (prior year: CHF 27.9 million) consists of guarantees and securities issued by CPH Chemie+Papier Holding AG to Swiss banking institutions in respect of subsidiaries' credit limits and overdraft facilities. CPH Chemie+Papier Holding AG has also provided a guarantee of CHF 10.0 million (prior year: CHF 10.0 million) to Canton Zurich should Zeochem AG be unable to meet the outstanding costs of the inspection, monitoring and clean-up of a waste disposal site.

Pledged assets

Liquid funds with a value of CHF 0.7 million are pledged (prior year: CHF 0.7 million).

Joint and several liability

CPH Chemie+Papier Holding AG is jointly and severally liable towards the Swiss federal tax authorities in Bern for current and future value-added tax obligations of the CPH Group (group taxation).

Assets subject to reservation of ownership

The book value of leased tangible fixed assets amounts to CHF 0.1 million (prior year: CHF 0.0 million).

Leasing liabilities

The liabilities on leased vehicles amount to CHF 0.1 million (prior year: CHF 0.0 million).

Remuneration of members of the Board of Directors and Group Executive Management

The remuneration paid to members of the Board of Directors and Group Executive Management is detailed in the Remuneration Report on Pages 37 to 40.

Subordination agreements

Subordination agreements have been concluded between CPH Chemie+Papier Holding AG, Perlen and its subsidiaries Zeochem AG, Rütli ZH amounting to CHF 40.0 million (prior year: CHF 40.0 million) and Perlen Papier AG, Root amounting to CHF 5.0 million (prior year: CHF 0.0 million).

Subsequent events

No significant events occurred between 31 December 2021 and 11 February 2022.

In response to a cyber attack, the IT systems of the CPH Group were shut down in a controlled manner on 7 January 2022 and production had to be halted at the Perlen and Müllheim sites. Once the key IT systems were back in operation, production was resumed at the sites concerned in the course of 13 January 2022. The CPH Group does not expect this incident to have any material impact on its 2022 business results.

Recommendation on the appropriation of reserves

Movements in earnings available

in CHF thousand	2021	2020
Balance brought forward from prior year	14 335	52 553
Appropriation of reserves available for distribution by resolution of the General Meeting		
Release from capital contribution reserve	4 200	0
Distribution to shareholders	-10 800	0
To legal retained earnings	0	0
To voluntary retained earnings	-7 735	-52 553
Profit/Loss for the year	-46 579	14 335
Earnings available at end of year	-46 579	14 335

Board's recommendation to shareholders on the appropriation of reserves

in CHF thousand	2021 Board recommendation	2020 Board recommendation
Earnings available	-46 579	14 335
Release from capital contribution reserve	0	4 200
Distribution to shareholders	-7 800	-10 800
Transfer to/Release from voluntary retained earnings	54 379	-7 735
Balance of earnings to be carried forward	0	0

Distribution proposal

The Board of Directors will propose to the Ordinary General Meeting of 17 March 2022 that a distribution be awarded to shareholders of CHF 1.30 per share through a release from voluntary retained earnings.

For the 2020 financial year, the Ordinary General Meeting resolved that a distribution be awarded to shareholders of CHF 1.80 per share. Of this amount, CHF 1.10 per share derived from earnings available and CHF 0.70 per share from a release from the capital contribution reserve.

Report on the audit of the financial statements

Opinion

We have audited the financial statements of CPH Chemie+Papier Holding AG, which comprise the income statement for the year ended 31 December 2021, balance sheet as at 31 December 2021 and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 84 to 89) as at 31 December 2021 comply with Swiss law and the company's articles of incorporation.

Basis for opinion

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report.

We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our audit approach

Overview



Overall materiality: CHF 4 000 000

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the financial statements as a whole, taking into account the structure of the entity, the accounting processes and controls, and the industry in which the entity operates.

As key audit matter the following area of focus has been identified:

Valuation of long-term receivables from Group companies and of investments in Group companies.

Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the financial statements as a whole.

Overall materiality CHF 4 000 000

Benchmark applied Total assets

Rationale for the materiality benchmark applied We chose total assets as the benchmark for determining materiality because it is a generally accepted benchmark for materiality considerations relating to a holding company.

Audit scope

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we considered where subjective judgements were made; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of long-term receivables from Group companies and of investments in Group companies

Key audit matter

We consider the valuation of long-term receivables from Group companies and of investments in Group companies as a key audit matter. These items are disclosed on the balance sheet in the amounts of CHF 360 million and CHF 89 million, respectively.

The valuation of long-term receivables from Group companies and of investments in Group companies depends on the financial substance and profitability of the subsidiaries. In the financial year 2021, the company recorded value adjustments on investments in Group companies in the amount of CHF 62 million net.

Please refer to notes 2.2, 2.11 and 2.12 in the notes to the financial statements.

How our audit addressed the key audit matter

We performed the following audit procedures with regard to the valuation of long-term receivables from Group companies and of investments in Group companies:

- For significant investments in Group companies and long-term receivables from Group companies, we tested the recoverability based on the net assets valued in accordance with Swiss GAAP FER or, if necessary, on the basis of other Management assessments of net asset or capitalised earnings.

- In addition, we examined, if necessary, whether appropriate provisions for letters of subordination agreements had been recorded.

Our audit supports the amounts recognised by Management with regard to long-term receivables from Group companies and investments in Group companies.

Responsibilities of the Board of Directors for the financial statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located at the website of EXPERTSuisse: <http://expertsuisse.ch/en/audit-report-for-public-companies>. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of reserves complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG



Thomas Illi
Audit expert
Auditor in charge



Josef Stadelmann
Audit expert

Zürich, 11 February 2022

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This Annual Report is also available in the original German. In the event of any discrepancy, the German version shall prevail.