HEIQ

HeiQ PLC
Annual Report and Accounts 2022

Differentiate. Innovate.

SWISS
TECH
INSIDE

Who we are

Headquartered in Switzerland, HeiQ is an IP creator and established global brand in materials and textile innovation, adding hygiene, comfort, protection and sustainability to the products we use every day. This is how we contribute to saving our planet and improving the lives of billions of people.

Our purpose

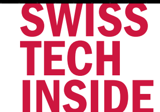
To improve lives by innovating the materials in the products people use every day.

Our vision

Heiqed materials that improve the lives of billions.

Our mission

To pioneer differentiating materials through co-creation.



Our strategy:

Our strategy to achieve sustainable growth and to materialize our ambitions is based on three pillars:

- **People:** To create a diverse, agile and entrepreneurial high-performance global team, driven by our purpose to improve lives of which in particular includes reduction of mankind's footprint on the planet with disruptive technologies.
- **Innovation:** To commercialize a steady stream of sustainable, circular and high-performance ingredients and materials.
- **Differentiation:** To effectively communicate the added value of our innovations to our downstream customers, as well as their customers, by providing best-in-class ingredient branding.

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Setting the course for what comes next

Esther Dale-Kolb
Chair

FY 2022 was an extraordinarily challenging year for HeiQ. Whilst trading performance in the first half remained robust given the circumstances, the markets we operate in became significantly weaker in the second half. An array of macroeconomic pressures converged, creating a very challenging trading environment for HeiQ, its competitors and the textile industry at large.

The sudden decrease in sales and related contribution margin impacted on our performance. In addition, we had to defer previously recognized revenue from partnership agreements and therefore, our financial performance fell short of expectations in FY 2022.

Further, the Board of HeiQ Plc had to announce that the Company could not publish its audited FY 2022 Accounts by 30 April 2023, which regrettably led to the shares being suspended. HeiQ appointed Deloitte as its new auditor in November 2022, to reflect the international expansion and increased complexity of the Group since listing. Following several acquisitions, the Group has grown significantly in terms of capabilities, technology platforms and growth potential, but also in terms of organizational complexity. We have seen a number of businesses with different systems, processes and cultures joining the Group since 2017 and in particular in 2021. In order to integrate these different businesses, the Group started the harmonization of processes, systems and ways of working across the organization in 2022. While this is a challenging project for any organization, the changes in market conditions made this process even more challenging given our lean set-up across the Group, including in support functions. All these factors contributed to a significantly extended year end reporting timetable for 2022 with a related impact on the timing of the external audit work.

Further, while reviewing our processes, the Board has also challenged key estimates and judgments in relation to previous reporting periods. This has led to the restatement of prior year financial statements as disclosed in the notes to the financial statements within this Annual Report[R].

We understand the frustration of our stakeholders – in particular shareholders – about the delay in reporting audited FY 2022 Accounts and the related suspension of shares from trading on the London Stock Exchange.

With market conditions remaining very challenging during 2023, we have taken rapid, decisive action to build additional resilience and to reduce our cost base, reviewing and prioritizing our activities rigorously, including our innovation pipeline. These activities have allowed us to navigate through 2023 during which time cash management is key given the fragile market conditions and uncommitted nature of the Group's current financing facilities as further discussed in the Financial Review.

Outlook

While we expect the trading conditions for our commercialized product range to continue to be challenging into 2024, we have significantly reduced our cost base and will implement further measures if needed. The Board is also re-assessing the overall strategy and resource allocation of the Group as well as its debt structure to address the uncertainty in relation to financing arising from the uncommitted nature of credit facilities, as disclosed in the notes to our financial statements. This is to ensure a healthy balance between maintaining the long-term growth potential of our key innovation projects, the constraints of the current market conditions for our commercial business activities as well as being prepared to capture opportunities to gain market share once market conditions improve.

We are facing uncertain times, both politically and economically on a global scale, which has impacted many key regions of HeiQ's operation. At the same time, we are seeing increasingly positive trends within our markets and consumer preferences quickly adapting to more sustainable solutions, opening up opportunities for growth for HeiQ and its innovative portfolio of sustainable products.

We thank our stakeholders for their continuing support. We as a Board as well as the whole management team of HeiQ remain committed and motivated to deliver long-term growth and value for our shareholders and all other stakeholders by bringing sustainable technologies to market. With an aggregate holding of approximately 24%, the Board and extended management team continues to be well aligned with the interest of shareholders.

Esther Dale-Kolb
Chair

R Details on restatements of prior year financial information are disclosed in Note 2 to the Financial Statements (pages 84 to 88). Restated prior year financial information in the Strategic Report (pages 2 to 43) and Corporate Governance section (pages 44 to 65) of this Annual Report is marked with an asterisk as follows "R". The same applies to financial information for the six-months interim period ending June 30, 2022 which has been restated as per the 2023 interim accounts published on the same date as this Annual Report.

Invest in HeiQ. Invest in impact.

Market leading business in materials innovation

- 7 advanced technology platforms developed in-house or through acquisition
- Established and commercialized innovation portfolio of +200 products
- Developing 4 venture industry disruptive technologies with significant growth potential & value creation
- Diversified 100+ key customer base served across multiple markets & countries

Growth delivered organically and through acquisition

- Ca 70% revenue growth since 2019
- 5 capability building acquisitions completed and integrated since listing in 2020

Award-winning ESG credentials

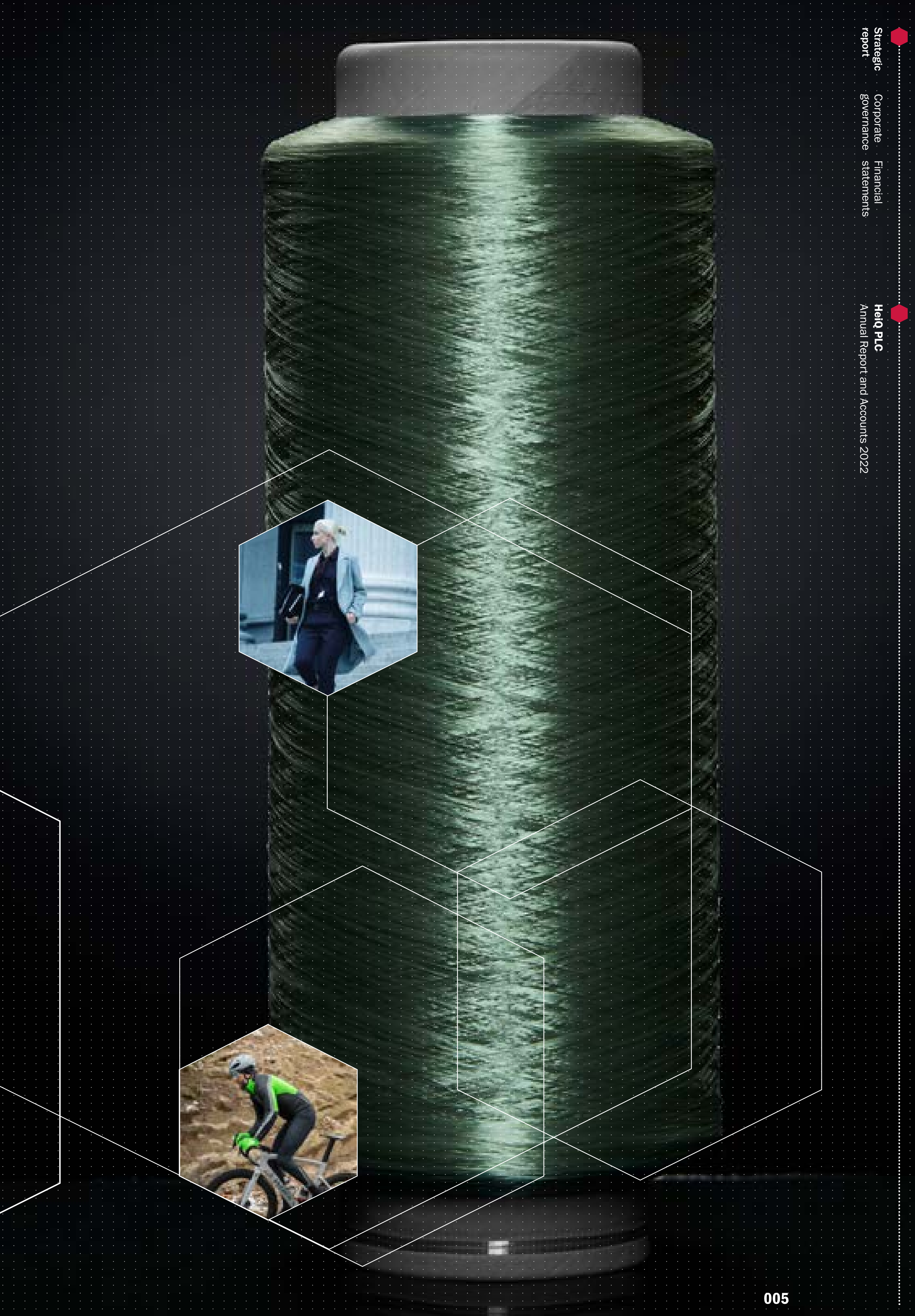
- Swiss Environmental award in 2019
- Swiss Tech award (2010 and 2020)

Active in high growth markets HeiQ's six focus markets

- Ingredient IP creator for six growth markets (market data as per Statista)
  1 Textile chemicals, $28bn (market growth 4.6%)
  2 Man-made fibers, $135bn (market growth 3.5%)
  3 Paints & coatings, $200bn (market growth 5.4%)
  4 Antimicrobial plastics, $37bn (market growth 10.1%)
  5 Probiotics, $53bn (market growth 6.8%)
  6 Hospital & household cleaners, $55bn (market growth 5.2%[6])
- Addressable market segments: High-tech, high growth
  1 Textile chemicals, $1bn
  2 Man-made fibers, $2.9bn
  3 Paints & coatings, $0.5bn
  4 Antimicrobial plastics, $1bn
  5 Probiotics, $0.5bn
  6 Hospital & household cleaners, $1bn
- Total addressable market: $6.9bn

Experienced, diverse, and committed leadership team

- ~24% ownership by Board & leadership team
- 3 distinct Business Units: Textiles & Flooring, Life Sciences, Antimicrobials



Global Megatrends

As an Innovator, we create technology solutions in response to real world problems, megatrends and specific market needs from our brand clients.

We anticipate future needs brought by global problems & megatrends and develop science-based solutions to address them swiftly. A number of global, long-term trends are having a major impact on the planet. These sustainability challenges are driving change in both manufacturing processes and product development in the markets in which we operate, giving us the opportunity to contribute and bring enhanced sustainability downstream.

Growing, urbanizing and migrating global population

Technological advancements and economic prosperity have enabled improvements in medicine, sanitation, food production and living conditions, resulting in lower mortality rates and a rapidly growing global population.

This growth has led to more people migrating to towns and cities in pursuit of increased quality of life, with cities and urban areas now home to over half of the world's population. This influx places huge strain on infrastructure such as transportation, sewage, housing and utilities in a limited space.

Population growth and urbanization result in increased pollution and hygiene needs, meaning a greater requirement for sustainable and more effective technologies to mitigate these risks. Increasing population densities also pose greater threats of disease while the excessive usage of disinfectants contributes to increasing antimicrobial resistance, these all put substantial emphasis on effective but sustainable surface and air hygiene technologies such as HeiQ Synbio™.

Climate change and environmental degradation

The negative implications of earth's rising temperatures, increased CO_2 levels and biodiversity loss are profound. The scientific community has clearly stated the urgent need to keep global warming below a 1.5˚C increase to preserve stable living conditions. Despite this, emissions continue to rise, species become endangered, and deforestation continues.

The detrimental effects of climate change include rising sea levels, extreme weather events and habitat loss, and will inevitably lead to resource scarcity and social and political unrest, leading to migrations. Often the poorest in society are most severely impacted by these environmental changes, meaning the developed world has a heightened responsibility to address its production and consumption habits and the wider implications of these for poorer communities.

Microplastic pollution to our oceans is a major issue and there is an urgent need to mitigate our damage to the marine ecosystem, which is responsible for up to half of this world's annual CO_2 absorption. According to the Ellen MacArthur Foundation* and the World Economic Forum, by 2050 there will be more plastics than fish in our oceans. And synthetic textiles are a key contributing industry already responsible for over 30% of all oceanic microplastics. A problem we aim to solve by substituting polluting Polyester with HeiQ AeoniQ™ climate positive fibers.

* The New Plastics Economy, Ellen MacArthur Foundation. 2016.

Scarcity of and global competition for resources

Humanity uses approximately 1.6 planets' worth of resources to support its current activities and if drastic measures aren't taken, this is set to increase to two planets' worth by 2030. In short, we need to halve our current impact to ensure we are able to live within our planetary boundaries.

We are already seeing interconnected problems arising from the resource demands of a growing population coupled with the impact of climate change on resource availability. These two unstoppable forces mean competition for limited resources is fierce, and management and mitigation are vital to maintain a fair and balanced society and to avoid conflict.

Extending products lifecycle, manufacturing products using recycled materials or waste and that are recyclable at the end of their usable life will preserve the raw material value throughout its lifecycle. Focusing on sustainable solutions for production practices will support the preservation of natural capital. Political intervention and global collaboration are essential to ensuring sustainable development and the creation of closed-loop economies and fair access to natural resources.

Markets we operate in

As an innovator for novel materials and disruptive technologies, providing solutions to consumers as their demands change based on megatrends, there is scope for our products to be used across many markets. We continue to consolidate our strong position in Textiles & Flooring and to build up our Antimicrobials and Life Sciences (probiotics) footprint. New markets we will increasingly move into include, for instance, man-made cellulosic fibers (HeiQ AeoniQ™), and at an earlier stage, technical filtration as well as batteries and electronics with our advanced R&D project related to our disruptive porous graphene membrane technology (HeiQ GrapheneX™). The size of the markets we operate in are as follows:

Textile chemicals

$28bn*

CAGR 4.6%

HeiQ Business Unit serving the market
Textiles & Flooring

Man-made fibers

$135bn*

CAGR 3.5%

HeiQ Business Unit serving the market
Venture development project HeiQ AeoniQ™

Paints & coatings

$200bn*

CAGR 5.4%

HeiQ Business Unit serving the market
Antimicrobials

Antimicrobial plastics

$37bn*

CAGR 10.1%

HeiQ Business Unit serving the market
Antimicrobials

Probiotics

$53bn*

CAGR 6.8%

HeiQ Business Unit serving the market
Life Sciences

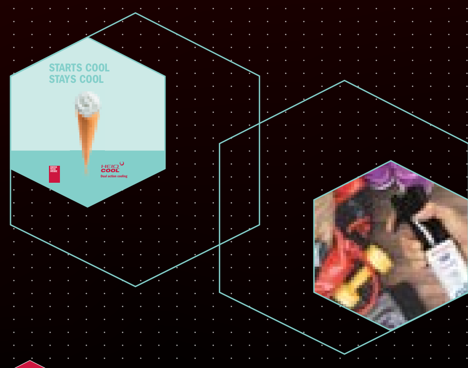
Hospital & household cleaners

$55bn*

CAGR 5.2%

HeiQ Business Unit serving the market
Life Sciences

* Statista



Please refer to the Sustainability Report on P.16 for more.

Business model

Our purpose is to improve lives by innovating the materials people use every day. To achieve that, it is important for us to bring our innovations to multiple industries.

Over our 18 years of history, we have grown organically as well as through strategic, capability-building acquisitions, five of which were completed in recent years. All our acquisitions bring us either technological know-how to innovate for the segments we are already active in, extend our customer base or give us access to a new segment. We have worked to ensure the successful integration of the acquired teams and to take advantage of synergies across all entities. Today, the HeiQ Group organizes its commercial activities in three Business Units and an Innovation Service function serving customers across the board. HeiQ has a special push-and-pull business model, meaning we do not only try to push our product downstream to the next immediate user but also promote our innovations to their customers so as to create a “pull” force to receive nomination and increase the speed of adoption for our technologies.

Business Unit/Service Function	Aim	Key products/offering	Typical customers who directly purchase from us	Typical influencers for our customers' decision-making (downstream customers of our customers)
Textiles & Flooring	**Provide innovative ingredients to make textiles & flooring more functional, durable and sustainable.**	Specialty functional textile finishing	Fabric manufacturing mills in South-/South-east Asia, EMEA & Central America	Apparel and home textiles brands in Europe, Asia & North America
		Auxiliaries and process chemical that improve efficiency in the manufacturing process	Carpet & flooring manufacturing mills	Carpet and flooring brands
Life Sciences	**Offer biotech solutions to replace harmful substances in domestic, commercial and industrial usage, for a more balanced microbiome and environment**	Synbiotic professional and household cleaning products	Cleaning products manufacturers, cleaning service providers	Stakeholders of care homes, medical facilities, schools and office buildings
		Synbiotic ingredients for cosmetics	Cosmetic product manufacturers	Cosmetic consumer brands
		Synbiotic cleaning agents for industrial water treatment and air conditioning	Water and HVAC service companies	Industrial manufacturers
		Ingredients and manufacturing solutions for medical devices	Medical device product manufacturers	Over-the-counter retailers of medical devices
Antimicrobials	**Functionalize different hard surfaces in everyday products and our surroundings**	Inorganic, organic and botanical antimicrobial technologies for plastics and coatings	Masterbatchers, compounders, and coatings manufacturers	Brands of bathroom and kitchen products, home appliances, and consumer paints
		Transparent conductive, low-E and radar shielding coating solutions	Manufacturers of building materials, automotive and defense materials	Environmental housing solution providers, or electric car brands and the defense industry
Innovation Services	**Enable customers in all business areas to innovate beyond their in-house capability**	Innovation project management service, grants applications consulting and research network support	Customers from all the above sectors	Customers from all the above sectors

Value creation

Our Business Units (see opposite) generate value along three key activities:

Key activities	The HeiQ difference	Revenue generation
.01 Scientific research	20+% of our employees are highly skilled scientists working in research and development; we also leverage our extensive network of 30+ global academic partners through government grants	Our co-creation approach provides us with a steady stream of innovation ideas from different sectors, forming the basis of future commercialized products. For projects that include milestone payments or project financing from our customers, revenue is generated directly during the R&D process.
.02 Specialty material manufacturing	Our strong IP profile and seven technology platforms give us a strong competitive advantage on all the ingredients and materials we manufacture and sell to various sectors.	Our primary source of revenue is the sale of products we manufacture. Our second source of revenue is royalties on IP we license.
.03 Consumer marketing & ingredient branding	As innovations are created in the laboratory and used by consumers, we have built competence in explaining the impact of our products to all downstream stakeholders, including consumers.	Strong consumer marketing and ingredient branding allow HeiQ to generate revenues from royalty bearing licenses and exclusivity fees.

Value Creation

Partners and customers

Our brand partners and direct customers benefit from access to our differentiating technologies.

Our performance-enhancing materials improve their products. We provide end-to-end support and all the services required to bring innovations to market.

Consumers

Products featuring our technology offer tangible benefits for the end user, including innovative functionality, comfort, hygiene, protection and sustainability features.

Employees

Our employees have the chance to work and develop in a meritocratic and diverse environment, being challenged and supported to help the Company deliver on its purpose and make a difference for a better world.

Investors

Our investors benefit from the high growth potential of our business and our willingness to create disruptive innovation.

Suppliers

We develop strong and trusted partnerships with our suppliers. Our growth and momentum will lead to increased spending on raw materials in innovative product applications.

Society

By helping many brands and consumers to reduce their impact on the environment, we are indirectly improving the lives of billions more. Through our engagement with university research partnerships, we play a role in fostering the education of new generations of scientists, engineers and entrepreneurs.

Cutting through the headwinds: a year in review

Carlo Centonze
CEO

I would like to first acknowledge the understandable frustration felt by our valued shareholders in regards to the delayed publication of FY 2022 accounts and the corresponding suspension from trading at LSE. As the largest shareholder I share this burden and as CEO I have addressed the commercial difficulties it generated for us.

The macro picture and FY 2022 performance

FY 2022 was a challenging year for our industry and our business, as we faced sudden and dramatic market disruptions in H2, caused by large inventory de-stocking by brands and retailers following reduced consumer demand, high inflation, and rising interest rates globally. These factors were exacerbated by the war in Ukraine and the resulting energy crisis in Europe has hamstrung the entire European chemical industry. Our business was further exposed to prolonged COVID-19 restrictions in China in H1, and the downturn was protracted by a sectoral recession in our customer segment following the lifting of restrictions and value chain shifts by US brands and retailers out of China. Given that we were investing in scaling up our four ventures with game-changing innovation technologies, the sudden decrease in sales and the related innovation financing by the profits from our commercial businesses not only impacted top line performance, but also Group profitability.

The dramatic disruption in market demand across our value chains also impaired the ability of our recently acquired businesses to achieve their business plans. The Directors therefore have concluded that an impairment of goodwill recognized upon acquisition of some of these businesses is appropriate.

Further, we had to partly defer revenues (and corresponding profits) in respect of certain partnership agreements originally recognized in H1 2022 and H2 2022 to future periods. Previously, we had recognized revenue from these contracts at the point in time of achieving certain technical development milestones. However, upon further review, we concluded that it is appropriate to recognize such revenues over time to coincide with specific exclusivity rights being granted by HeiQ to the partners. Consequently, total revenue of US$4.0 million has been deferred over a period of four years with initial revenues being recognized in H2 2022.

Total revenue for the year amounts to US$47.2 million (2021[R]: US$55.4 million) and the operating loss for the year was US$-29.2 million (2021[R]: US$-1.4 million) after goodwill impairments (aggregated goodwill impairments in 2021 and 2022 amount to US$13 million). The cash balance as of December 31, 2022 was US$8.5 million.

2023 Trading Update

Since the start of 2023, we have taken focused steps to reduce our cost base and reorganize the business. We have not seen the challenges abate in 2023 but actions taken since the start of the year mean we are to be in a better position going forward to manage the challenging macro-economic environment, continue building value in our core innovations and preserve our ability to deliver when the market demand turns.

I am pleased to report that the initiatives set out below have delivered an annualized 15% reduction in overheads, becoming effective mainly from H2 2023 onwards. As set out in our separately reported interim results, for H1 2023, we achieved sales of US$20.5 million (H1 2022[R]: US$27.6 million) with a slight decrease in margins in a buyers-market driven by current overcapacity (H1 2023:40.9% vs. 41.5% for FY 2022). I want to point out that while we have curtailed our investments in our four ventures, we have maintained their value creating momentum and thus face the corresponding costs. The benefits of the reduced cost base will only be felt in H2 2023, so our operating loss for H1 2023 amounts to US$-6.0 million (H1 2022[R]: US$-1.6 million). The cash balance as of June 30, 2023 amounts to US$7.3 million. Our credit facilities have historically and continue to be uncommitted in nature, which casts a material uncertainty on the going concern assessment until appropriate longer-term funding is in place, as disclosed in the Notes to the financial statements. However, the Board considers that the Group has adequate resources and accordingly, the financial statements continue to be prepared on the going concern basis. The Board is in discussions with financial institutions to replace the currently uncommitted credit facilities by committed, long-term facilities, but the outcome of these discussions cannot be guaranteed.

Reorganizing, right-sizing and re-focusing

At the beginning of the year we reorganized our activities into three commercial business units and one “Other” segment encompassing four innovation ventures with no commercial activities yet, Innovation Services provided internally and externally to a broad range of customers, as well as group functions. The three distinct business units each have their dedicated team leader, management team, and P&L responsibility:

- Textiles & Flooring, under the leadership of Mr. Mike Abbott, headquartered out of the US
- Antimicrobials, led by Mr. Tom Ellefsen, headquartered out of Thailand
- Life Sciences, led by Dr. Robin Temmerman, headquartered out of Belgium

I will give you an update for each of these shortly, but before I do so, it is worth touching on how we have built resilience into the service offerings - Innovation, Differentiation and Regulatory - which are delivered through each business unit as well as internal services like Finance.

Besides streamlining and relocating various support functions out of Switzerland to lower-cost locations, we have created clear goals and responsibilities for all our business and service organizations to optimize operations and to focus resource allocation rigorously. In Innovation, we have focused our R&D investment on innovation technologies which are closest to cash-flow generation or are already being financed by brand partners or through grants. In Differentiation we are leveraging our brand customers to promote HeiQ to a broader (consumer) audience thereby reducing our costs. We have expanded our internal service organization particularly in Finance by implementing a centralized accounting function and will continue to do so to strengthen our financial reporting processes.

Chief Executive Officer's review continued

In addition, we are applying a strong focus on our commercialization teams, aligning our efforts with our mission to improve the lives of billions through our products. We are prioritizing high value opportunities in high growth markets, where we can leverage competitive advantages and deliver sustainable value for our customers and shareholders. We are focusing on our commercialized innovations and mature, sustainable and future-proof products such as HeiQ Allergen Tech and HeiQ Synbio, HeiQ Mint and HeiQ Smart Temp and are also actively challenging competitors' positions with a better quality-price-terms ratio offering with our HeiQ Pure range.

Textiles & Flooring

We have taken decisive steps to strengthen our position as the market leader for branded, nominated textile innovation. In order to maintain capabilities at a lower cost, we have accelerated the reallocation of our innovation, testing, and product management operations to Portugal, which is a lower-cost country with high education in which to undertake these labor-intensive workstreams. Our production has been moved largely to the US from Switzerland due to lower energy costs and chemical raw material availability. Our top-selling products are being further integrated backwards to improve our margin. Additionally, we are investing in Central America, a region which is increasingly capturing supply from US brand's reducing their exposure to China. We are exploring global local manufacturing partnerships to lower the impact on margins of short notice orders and resulting rapid delivery logistical costs.

Antimicrobials

In our Antimicrobials business, we have reduced the commercial team by focusing on selected markets and expanded our support to our established large channel partners Americhem and Avient. We are further reducing our overheads and divesting from our regional sales hub HeiQ Brazil in order to build up this particular market with a commercialization partner instead. We are focused on strengthening our regulatory assets for inorganic, botanical and natural antimicrobials to enhance our position within specialty antimicrobials and are looking for opportunities to consolidate the industry segment.

Life Sciences

In Life Sciences we have achieved a key milestone with the publication of the study comparing Ecolab disinfectants with our HeiQ Synbio probiotic cleaners at the University Hospital Charité Berlin. The study, which was sponsored by the Melinda & Bill Gates foundation and the German state confirmed that HeiQ's probiotic cleaners are equally effective to Ecolab's disinfectants while significantly reducing resistance gene developments. The study led to a recommendation for probiotic cleaners by the German Robert Koch institute and the finalization of the new European Detergent Regulation, now including probiotic cleaners. With this key regulatory milestone achieved, we are doubling down on securing significant contracts for HeiQ Synbio in the healthcare cleaning market and selecting the best channel partner for global commercialization. We are in negotiations with the leading channel partner for an exclusive OEM agreement for our probiotic healthcare cleaners. Additionally, we are revisiting our medical device business strategy as closing of an OEM agreement is not materializing.

Venture Innovation

Innovation remains the lifeblood of our business and future value creation. I talked earlier about our focused strategy for innovation, prioritizing core technologies which are close to positive cash flows or are being funded by customers or grants in order to alleviate the impact of their expensed R&D costs on our net commercial revenues and accelerate their technology and market readiness.

One of our most valuable innovation platforms is HeiQ AeoniQ™, the world's first climate-positive fiber. HeiQ AeoniQ™ has had significant industry support by Hugo Boss, The Lycra Company and MAS Holdings and has been taken to customers as a HUGO BOSS Polo Shirt on consumer shelves as early as January 2023, just 15 months after launching it. Hugo Boss has recently captured global attention for HeiQ AeoniQ with their "THE CHANGE" launch in high fashion. Additionally, Beste, an Italian manufacturer, introduced the first fabric collection featuring HeiQ AeoniQ™ to a range of major Italian fashion brands.

HUGO BOSS has committed itself to replacing all use of polyester and nylon by 2030 and made the achievement of the same a fundamental part of leadership's remuneration. HeiQ AeoniQ™ has one objective, to replace polyester, a US$135 billion market with a compounding annual growth rate of 3.5%. Most recently, in July 2023, we secured a further US$2.5 million funding from MAS Holdings, a premium leader in garment making headquartered in Singapore. We have further secured US$1.2 million in grants for our R&D work and up to US$ 8 million government grant contributions over the next two years for our first 3 kilotons (kto) plant scale-up in Portugal. We will continue our efforts to secure funding and

offtake agreements with leading brands in order to finance and build our first 30kto capacity production plant scheduled to operate in 2026.

HeiQ GrapheneX is a proprietary technology platform that enables us to directly synthesize porous graphene materials with high performance and versatility. This platform is strategically positioned to capture the growing demand for advanced materials in the batteries and electric vents sectors. We have recently sold our first samples to a Fortune 500 Brand and top three leader in handheld mobile devices. Over the next two years we aim to deliver our first pilot commercialization plant and are currently negotiating product development funding with a key OEM player in the handheld mobile devices industry.

HeiQ ECOS is a transparent conductive coating technology that enables low emissivity. HeiQ ECOS can also be used in defense, to alter the electromagnetic signature of assets making them stealth. We have two existing defense customers paying for the application development for signature management. With the knowledge gained from these projects, we have developed a strong proof of concept for transparent window insulation and yield-enhancing greenhouse films. Less energy is needed to cool down or warm buildings or greenhouses and if utilized in the automotive window space significantly more reach can be conferred on electric vehicles. We are currently validating the technology in field trials with market leading adopters and have been able to secure additional grants to develop further technology applications.

HeiQ BacCell is centered around our precision fermentation technology, utilizing bacteria to manufacture post-biotics (HeiQ Synbio platform). Our aim is to use agricultural and food waste available in large amounts and transform them into bacterial cellulose. The latter is utilized as a feedstock for our HeiQ AeoniQ climate positive fiber and promises additional market application opportunities in packaging, food, cosmetics and medical currently being explored with leading channel partners. By using waste-based feedstock we prevent the burning or fouling of organic waste and thereby contribute to reduce greenhouse gas emissions, with a potential for carbon credits being awarded.

Sustainability

Our technologies are intrinsically built to bring sustainability downstream to our customers and to consumers. Our biggest contribution to science-based reduction goals is the continuous substitution of hydrocarbon based raw materials in our products with bio-based raw materials. With HeiQ AeoniQ™ we are bringing to the market a game changing technology, capable of decarbonizing the textile industry with one of the few climate-positive technologies able to reduce the science-based footprint of brands and retailers, contributing significantly to reaching a net zero target. At HeiQ, we are committed to driving impactful game-changing sustainable innovation technologies to market.

Outlook

Looking ahead, our vision remains firm: striving to improve the lives of billions by bringing sustainable technology solutions to market that can make an impact. To achieve this and to weather current challenging market conditions and financial uncertainties, we have taken and will take further actions as and when needed to control our costs and sharpen our strategy. This includes prioritizing innovations close to positive cash flow generation, to put appropriate emphasis on operational excellence as well as to drive our high potential key innovation initiatives with superior sustainability profiles.

We expect the above-mentioned measures beginning to flow through to our bottom line in H2 2023 with corresponding stabilization of our financial performance. However, we remain alert to take additional corrective actions should markets deteriorate further.

As always, I would like to end my statement by thanking our investors, team, advisors and customers for their support during what has been a very challenging period for the market and the company. As a significant shareholder and a founder of HeiQ, my commitment to grow HeiQ and materialize its huge potential remains unchanged.

Carlo Centonze
CEO

Key performance indicators

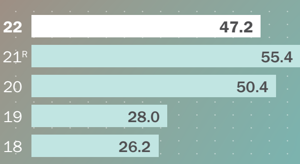
We use a number of Key Performance Indicators (KPIs) to measure our performance over time. We select KPIs that demonstrate the financial and operational performance underpinning our strategic drivers.

.01 Finance

Revenue | US$ million

-14.8%

(growth in 2022)



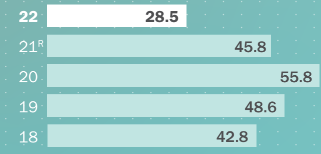
Why we measure

Sales growth reflects the increasing impact of our business on improving lives for millions.

Gross Profit Margin | %

-17.3% point

(change in 2022)

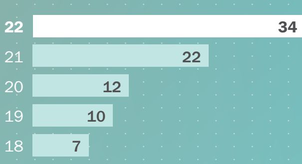


Why we measure

This KPI gives insight into our operational profitability.

Number of new projects that made it into our R&D pipeline

34

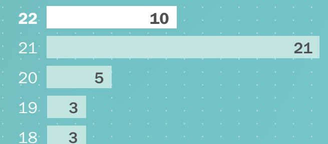


Why we measure

We never run out of innovation ideas and there are countless opportunities to innovate. HeiQ's ability to qualify the ideas through "proof of concept" and market potential evaluation before bringing them into our R&D pipeline is key to ensuring we have the market in mind before investing excessively into a project.

Number of launched innovations

10



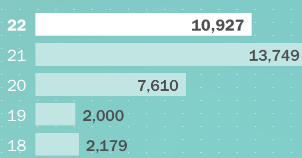
Why we measure

Innovations that are launched generate returns on our R&D investments.

Total number of media mentions

-21%

(change in 2022)



Why we measure

As a B2B, B2C and B2B2C ingredient brand, HeiQ is building its brand awareness across different target audience groups. Media mentions are "earned" media, which show our ability to gain face time with the audience without having to invest heavily in media-buying.

SMART TEMP

Sustainability report

We aspire to improve the lives of billions by innovating their everyday products.

Our purpose defines our reason for being, beyond being profitable.

HeiQ is dedicated to improving the lives of billions of people and society as a whole by establishing better and more sustainable materials and technologies.

Our core focus is to replace harmful substances with more sustainable alternatives, to extend the useful lives of consumer goods, to replace resistance creating biocides, and to improve energy utilization in buildings, electric vehicles and mobile devices.

We help fight air, water and soil pollution and resource depletion. We reduce energy consumption, water usage, microplastics and textile waste.

Only innovation can drive the systemic and disruptive change that is urgently needed.

Our ESG strategy

HeiQ's core business strategy is to improve lives through innovation for more functional and more sustainable materials which largely overlaps with our ESG strategy. Everything we do, all our innovation, has sustainability at the core.

As a provider of both functional and sustainable material ingredients, we inspire and enable the entire value chain to develop more eco-friendly, durable, biobased, renewable, recyclable and circular, enhanced products.

People are our biggest asset. The global success of HeiQ is indebted to their knowledge, skills, agility, cultural diversity (30+ nationalities) and a shared passion for our purpose. HeiQ is a proud equal opportunity employer.

HeiQ engages in sustainability reporting under the guidance of GRI (Global Reporting Initiative). We bring a transparent and credible sustainability promise, inspired by the principles and based on the requirements laid out by the GRI. Please read the GRI Content Index on page 24 for an overview of the disclosures published in this report.

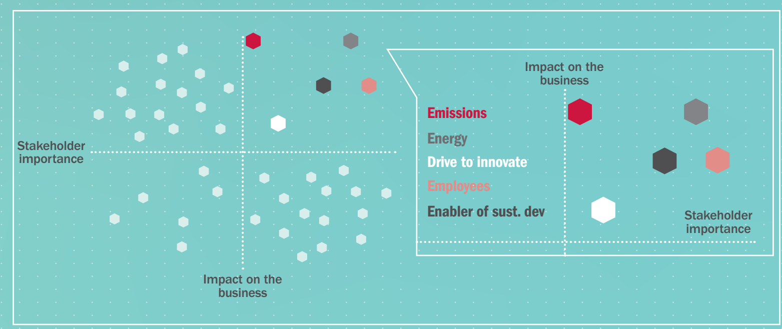
Definition of material topics

1 Impact assessment
In 2021 we researched the impact of our activities on the economy, on people, and on the environment, resulting in a long list of 43 material topics.

2 Stakeholders definition
A stakeholder power-interest matrix helped us to identify our six most relevant stakeholders: brand partners, mill customers, employees, investors, consumers, and the HeiQ leadership team were selected from the 40-stakeholder long list.

3 Materiality matrix and material topics selection
Stakeholder surveys and interviews and desk research resulted in a classification of the above-mentioned impacts in a matrix.

The materiality matrix plots importance to stakeholders and potential impact on the business and enables us to identify areas of high value to both.



Of the elements of high importance to both stakeholders and the business, the sustainability reporting team selected the 4 most important material topics featured under the GRI standard:

1 **Energy** consumption
2. Carbon **emissions**
3. Our **employees** as precondition for success
4. Our role as **enabler** of sustainable development in the value chain

For the calculation of energy consumption and carbon emissions we follow the UK Government's Environmental Reporting Guidelines: Including streamlined energy and carbon reporting requirements.

For additional and voluntary reporting on the selected material topics, we follow the guidance of GRI standards GRI-302 (Energy), GRI-305 (Emissions), GRI-401 (Employees) and GRI-301 (Materials).

Principles applied for reporting on energy consumption and carbon emissions as per the UK Government's Environmental Reporting Guidelines: Including streamlined energy and carbon reporting requirements ("SECR")

We subscribe to the principles of the Competition and Markets Authority in the UK and engage to be truthful and accurate, clear and unambiguous, substantiated, not omitting or hiding important information, only making fair and meaningful comparisons and avoiding all inconsistencies between claims and reality, between intentions and practice.

We realize that reporting sustainability impacts is a process of continuous improvement and acknowledge that we may face blind spots. We invite all stakeholders and readers to point these out to us.

We did not inherit the earth from our ancestors but borrow it from our children.

Sources of information

Our SECR reporting is based on in-house data on the combustion of primary fuel at owned sites and installations and purchased electricity. We continuously work to improve the quality of our data, collected from invoices for electricity, natural gas, propane, gasoline and diesel, the energy sources used in our HeiQ entities. Gaps in the data are filled by extrapolation or assumptions based on usage in other months.

Our contact for questions and remarks about the SECR reporting is HeiQ sustainability officer Mr. Philip Ghekiere philip.ghekiere@heiq.com

Scope

Physical locations operated by a controlled legal entity are in scope of these disclosures. This includes: HeiQ operational headquarters and laboratories in Schlieren (Switzerland), HeiQ production site in Bad Zurzach (Switzerland), HeiQ Chrisal (Belgium), HeiQ Chemtex in Concord, North Carolina and Calhoun, Georgia (USA), HeiQ Australia, HeiQ Taiwan, HeiQ Iberia (Portugal), HeiQ Medica (Spain), HeiQ RAS (Germany), HeiQ China, HeiQ Life (Thailand) and – new in the Group since early 2022 – HeiQ AeoniQ GmbH (Austria).

Conversion tables

For the conversion of liters, kg, lbs., gallons and Centum Cubic-Feet of Scope 1 primary fuel to kWh and tCO_2-e (tons of carbon dioxide equivalent) we used the gross caloric values of the 'UK Government Greenhouse Gas Conversion Factors for Company Reporting' version 22/6/2022 that is available for consultation at www.gov.uk

Fuel type	Unit	kWh	kg CO_2-e	Notes
Diesel	1 liter	10.80	2.70	
Petrol	1 liter	9.75	2.34	
Natural Gas	1 kWh	1.00	0.18	from m^3 to kWh is x 11,2222
Propane	1 kWh	1,00	0.21	from kg to kWh is x 14,019

For the Scope 2 conversion of purchased electricity, the CO_2-e values depend on the carbon intensity of the electricity production and the energy mix in the country where the electricity is produced. Our World in Data provides a global overview and a detailed summary of the countries that are relevant for HeiQ reporting. https://ourworldindata.org/grapher/carbon-intensity-electricity

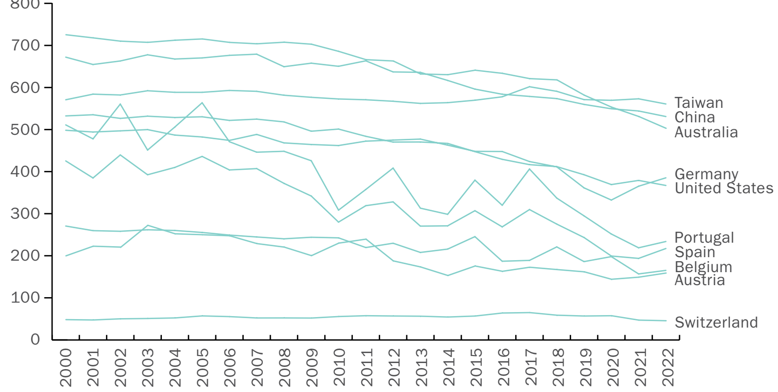
Carbon intensity of electricity in countries relevant for HeiQ

Country	2021 Value in grams CO_2-e per kWh
Taiwan	573
China	544
Australia	531
United States	379
Germany	365

Country	2021 Value in grams CO_2-e per kWh
Portugal	219
Spain	193
Belgium	156
Austria	147
Switzerland	47

Carbon intensity of electricity in countries relevant for HeiQ

Historic development per country (gCO_2/kWh)



Sustainability report continued

Material topic 1: Energy consumption

Under SECR Scope 1 we report primary fuel for combustion at owned sites and in owned installations. Natural gas was the main fuel type used for combustion (3,632,408 kWh) and 85% of this volume was used in our US manufacturing plants.

In 2022 the group used small volumes of diesel (133,207 kWh), gasoline (272,311 kWh) and propane (17,134 kWh).

75% of our diesel consumption was in HeiQ AeoniQ GmbH in Austria, where it was needed for energy generators during the startup period before installation of the green energy powerline that was operational from January 2023 and delivers energy from a 100% renewable source.

The total of 4,055,060 kWh combusted fuel is about the same as in 2021 (4,054,911 kWh). Note that HeiQ AeoniQ GmbH in Austria was not yet part of the reporting scope in 2021 and that 2022 group revenue is 14.8% lower than in 2021.

Under SECR Scope 2 we report 884.479 kWh of purchased electricity, approximately 15% more than in 2021. 48% of the total volume relates to our manufacturing plants in the US.

Whenever possible we purchase electricity from renewable sources: 100% in Austria, 75% in Belgium, 40% in Spain, 30% in China.

ENERGY in kWh		2022	2021
Scope 1	fuel	**422,652**	342,738
combustion	natural gas	**3,632,408**	3,712,173
Total Scope 1		**4,055,060**	4,054,911
Scope 2 purchased electricity		**884,479**	769,245
Total Scope 1 + Scope 2		**4,939,539**	4,824,156

Material topic 2: Carbon Emissions

In 2022 we report 756 tCO_2-e emissions from combustion and 270 tCO_2-e from purchased electricity, in total 1,026 tons of Carbon Equivalent. This is about the same quantity as in 2021.

EMISSIONS in tCO_2-e		2022	2021
Scope 1	fuel	**102**	**86**
combustion	natural gas	**654**	**668**
Total Scope 1		**756**	**754**
Scope 2 purchased electricity		**270**	**284**
Total Scope 1 + Scope 2		**1,026**	**1,038**

Material topic 1&2: Intensity ratios

Intensity ratios allow analysis of the effect of our actions to reduce energy consumption and carbon emissions irrespective of fluctuations in revenue. The aggregated and reported revenue for the year 2021 was US$55.42 million (restated) and US$47.20 million for 2022.

ENERGY in kWh		2022 RATIO	2021 RATIO (restated)
Scope 1	fuel	**8,954**	6,184
combustion	natural gas	**76,955**	66,984
Total Scope 1		**85,909**	73,169
Scope 2 purchased electricity		**18,738**	13,880
Total Scope 1 + Scope 2		**104,647**	87,049

EMISSIONS in tCO_2-e		2022 RATIO	2021 RATIO (restated)
Scope 1	fuel	**2.16**	1.55
combustion	natural gas	**13.86**	12.05
Total Scope 1		**16.02**	13.60
Scope 2 purchased electricity		**5.72**	5.12
Total Scope 1 + Scope 2		**21.74**	18.72

Material topic 3: Employees

The following analysis of our workforce are based on data records as received by our human resource department from employees.

About 67% of the 211 'HeiQans' live in Europe. The gender split is 44% female and 56% male over all employees, which represent 30+ nationalities. Senior management consists of 36% female and 64% male employees and the Board of 40% female and 60% male directors.

Employees in headcount

Region	Female	Male	Total
Asia	17	15	32
Europe	66	77	143
N&S America	9	24	33
Other	0	3	3
Total	**92**	**119**	**211**

Employees in FTE

Region	Female	Male	Total
Asia	17	15	32
Europe	61.8	73.2	135
N&S America	8.6	24	32.6
Other	0	2.4	2.4
Total	**87.4**	**114.6**	**202**

94% of our employees have permanent contracts, 6% have temporary contracts (including interns).

Employees in FTE – permanent

Region	Female	Male	Total
Asia	17	15	32
Europe	54.8	67.2	122
N&S America	8.6	24	32.6
Other	0	2.4	2.4
Total	**80.4**	**108.6**	**189**

Employees in FTE – temporary excl. interns

Region	Female	Male	Total
Asia	0	0	0
Europe	7	6	13
N&S America	0	0	0
Other	0	0	0
Total	**7**	**6**	**13**

90% of our employees work full-time.

Employees in headcount working full-time

Region	Female	Male	Total
Asia	17	15	32
Europe	54	70	124
N&S America	8	24	32
Other	0	2	2
Total	**79**	**111**	**190**

Employees in headcount working part time

Region	Female	Male	Total
Asia	0	0	0
Europe	12	7	19
N&S America	1	0	1
Other	0	1	1
Total	**16**	**8**	**21**

In 2022 we hired 60 people on permanent contracts, replacing 36 colleagues that left and creating 24 new roles.

New hires (permanent positions)

Region	Female	Male	Total
Asia	4	2	6
Europe	21	19	40
N&S America	2	11	13
Other	0	1	1
Total	**27**	**33**	**60**

Leavers (permanent positions)

Region	Female	Male	Total
Asia	3	1	4
Europe	11	14	25
N&S America	0	7	7
Other	0	0	0
Total	**14**	**22**	**36**

New hires (all positions)

Region	Female	Male	Total
Asia	4	2	6
Europe	38	27	65
N&S America	2	11	13
Other	0	1	1
Total	**44**	**41**	**85**

Leavers (all positions)

Region	Female	Male	Total
Asia	4	1	5
Europe	25	24	49
N&S America	0	7	7
Other	0	0	0
Total	**29**	**32**	**61**

HeiQ's broader workforce includes 28 workers who are not employees; they are mainly sales representatives and contractors. 14 of these work in Europe.

The annual total compensation ratio was 4.17.

This is the ratio of the annual total compensation for the organization's highest-paid individual vs. the median annual total compensation for all employees excluding the highest-paid individual.

Policies

In the 2021 Annual Report, we published the HeiQ Human Rights Policy. In this report, we are proud to share the HeiQ Equal Opportunity Employer Policy.

Workplace harassment, third-party harassment, and sexual harassment policies, The HeiQ Code of Ethics, The Supplier and Business Partner Code of Conduct, and The Employee Code of Conduct will be communicated in future annual reports.

All policies are embedded via a Content Management System that is accessible to everyone (with physical copies in selected locations like manufacturing sites). Employees are informed globally and/or locally when new policies are published or changed.

HeiQ Equal Opportunity Employer Policy

Purpose

Our equal opportunity employer policy reflects our commitment to ensure equality and promote diversity in the workplace, the pillar of a healthy and productive workplace. Everyone should feel supported and valued to work productively so we are invested in treating everyone with respect and consideration.

Scope

Our equal opportunity employer policy applies to all employees, job candidates, contractors, stakeholders, partners and visitors.

Equal opportunity is for everyone, but it mainly concerns members of underrepresented groups, who are traditionally disadvantaged in the workplace. We don't guarantee employment or promotions for people in those groups, but we will treat them fairly and avoid discriminating against them, either via conscious or unconscious biases.

Policies

Being an equal opportunity employer means that we provide the same opportunities for hiring advancement and benefits to everyone without discriminating due to protected characteristics like age, sex/gender, sexual orientation, ethnicity, nationality, religion, disability, and medical history.

We also want to make sure that equal opportunity applies to other instances. For example, we have an open and transparent culture for employees to speak up and we are committed to preventing and resolving any kind of harassment against our employees.

Our HR departments are responsible for assessing our Company's processes and ensuring they are bias-free. Whenever we find biases interfering, we will act immediately to refine our processes, train our people to combat their biases and protect possible victims of discrimination. We will give everyone the chance to work in an environment where their rights are respected.

Other relevant disclosures

Grievance mechanisms for employees

We plan to introduce an anonymous grievance hotline submittance system for employees to raise sensitive concerns through the Company ticketing system. Grievances would go to global People Operations (HR) who could either, where appropriate, a) redistribute to local HR, b) manage directly/globally or c) escalate to the Board.

Mechanisms for raising concerns on business conduct for individuals

The workplace harassment and sexual harassment policies outline the procedure for raising concerns. In a case where an employee thinks that the offender might not be aware of their behavior, the employee may try and raise the concern directly with the offender. Where appropriate, or if a customer, other third parties or multiple team members are involved, the employee can report their concerns to their supervisor. In any case, People Operations (HR, local or global) can be involved as a first point of contact, mediator or escalation point.

Noncompliance with employment laws and regulations

No significant instances of non-compliance with laws and regulations were reported in 2022.

Collective bargaining

No collective bargaining agreements reported in 2022.

Important memberships

1. USA: Corporate Members of AATCC (American Association of Textile Chemists and Colorists)
2. USA: Member of ASQ (American Society for Quality) and certified auditor through ASQ
3. Switzerland: Carlo Centonze Member of the Economic Council at Swiss Textiles. Member of the Board and Economic Council at Science Industries, Member of the Women's Wear Daily Global Impact Council

Material topic 4: Enabler of sustainable development

HeiQ inspires and enables sustainable development along the entire value chain and therefore considers our role as "enabler of sustainable development" in the value chain as per our GRI Materiality Matrix. As sustainability enabler we want to grow the portion of eco-friendly products in our offering and therefore defined as a KPI to measure our progress of increasing the share of eco-friendly products in % of total sales. We defined eco-friendly products as products made from recycled raw materials or products with a biobased content (4 categories).

One of GRI's main reporting principles is continuous improvement and encourages companies to take a start and improve/expand step by step over time. Therefore, we started reporting by analyzing the products that make up 93% of our total revenues only. We have been able to classify products accounting for 73% of our total revenues so far, for products accounting for 20% of our total revenues, classification has not yet been completed. The large number of products accounting for the remaining 7% of the total revenues, classification will be done only at a later stage.

Category	Revenue 2022 US$'000	In % of total revenue	Cumulative in % of total revenue
Recycled materials non biobased	**5,002**	11%	11%
Biobased 0% to 25%	**3,237**	7%	18%
Biobased 26% to 50%	**–**	–	18%
Biobased 51% to 75%	**1,151**	2%	20%
Biobased +75%	**414**	1%	21%
Total eco-friendly products	**9,804**	21%	21%
Traditional chemistry	**19,482**	41%	62%
Services	**5,357**	11%	73%
Not yet categorized	**9,557**	20%	93%
Revenue 93% ranking based on amount invoiced	**44,199**	–	93%
Total revenue	**47,202**	–	100%

Climate reporting: TCFD Recommended Disclosures

Compliance Statement

As an innovator and supplier of sustainable material ingredients, we inspire and enable the entire value chain to develop more eco-friendly, durable, energy saving, biobased, renewable, recyclable, and circular consumer products.

HeiQ has complied with FCA listing rule 9.8.6R(8) that requires standard listed companies to make disclosures consistent with the TCFD recommendations. TCFD is a comply or explain disclosure requirement. For the year ended December 2022, HeiQ is explaining on eight of eleven of the recommended TCFD disclosures.

As such, and in line with the listing rule requirements, the table below outlines our reasons for explaining, and our plans including timeframes for remedial action.

TCFD recommendation	TCFD recommended disclosure	Compliance position	Rationale for explaining	Remediation plans	Timeline
Governance	a. Describe the Board's oversight of climate-related risks and opportunities.	Compliant	The board of HeiQ Plc does not currently have oversight of climate-related risks and opportunities, and as such there is no process nor frequency for informing the board on these matters. The board and/or board committees do not currently systematically consider climate-related risks and opportunities when reviewing and guiding strategy, major plans of action, risk management policies, annual budgets, and business plans as well as setting the organization's performance objectives, monitoring implementation and performance, and overseeing major capital expenditures, acquisitions, and divestitures There are no climate-related goals and targets, and so the board does not monitor progress.	N/A	N/A
	b. Describe management's role in assessing and managing climate-related risks and opportunities.	Compliant	HeiQ plc has not assigned specific climate-related responsibilities including assessing and/or managing climate-related issues to management-level positions or committees and as such, no management positions or committees report to the Board or a committee of the Board on such topics. Management are not currently routinely informed about climate-related risks and opportunities and there is no formal organizational structure nor monitoring process in place for this purpose.	N/A	N/A
Strategy	a. Describe the climate-related risks and opportunities the organization has identified over the short, medium and long-term.	Explain	We have not yet undertaken scenario analysis including defining timeframes, considering materiality, or selecting scenarios. As such we're not identified the climate-related risks and opportunities that might be material to HeiQ under different scenarios and different timeframes, nor have we considered how these risks and opportunities might vary by sector and/or geography.	In a first step, the Company plans to define climate-related risk management processes in order to identify respective risks. The Company foresees to engage support from external advisors if and when deemed necessary by the Board to support this process.	We appreciate the importance of undertaking scenario analysis and are looking to complete this in time for 2024 Annual Report. We will be working closely as a senior management team in defining timeframes, materiality and scenarios, before approving the climate-related risks and opportunities that we intend to report in our 2024 annual report. We might consider to engage a third party to support us with this work.
	b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	Explain	Having not undertaken scenario analysis we have not been able to commence quantification of our climate-related risks and opportunities, nor provide commentary as to the impacts, mitigations, and actions we are undertaking as a business. As yet we also have not developed a transition plan and have not been able to make the appropriate disclosures as a result.	Once climate-related risk management processes are in place and respective risks have been identified, the Company intends run a scenario analysis in order to evaluate the impact of those identified climate-related risks on the Company's business, strategy and financial planning. In order to do so, the Board will engage support from external advisors if and when deemed necessary.	Our work on quantification is contingent on our work outlined in strategy (a) above on scenario analysis. Once this is complete we will commence quantification; this is a medium term priority. We will provide a progress update in our next annual report with outputs provided subsequently.

TCFD recommendation	TCFD recommended disclosure	Compliance position	Rationale for explaining	Remediation plans	Timeline
	c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Explain	HeiQ plc has not yet undertaken any scenario analysis and therefore has not been able to assess HeiQ's resilience to a 2°C degree or lower climate scenario in detail.	We do not plan to undertake a scenario analysis for a 2°C or lower scenario before 2025 as we intend to focus on implementing other TCFD recommendations beforehand.	2°C or lower scenario analysis and respective resilience reporting is a medium-term goal and will therefore be addressed earliest by the 2025 annual report.
Risk management	a. Describe the organization's processes for identifying and assessing climate-related risks.	Compliant	HeiQ plc does not currently have risk management processes in place for identifying and assessing climate-related risks and as such does not determine the relative significance of climate-related risks in relation to other risks. The Company has not yet formally assessed existing and emerging regulatory requirements related to climate change or other relevant factors. HeiQ plc does not currently have processes for assessing the potential size and scope of identified climate-related risks nor does it have specific definitions of risk terminology or references to existing risk classification frameworks.	N/A	N/A
	b. Describe the organization's processes for managing climate related risks.	Compliant	HeiQ plc does not currently have processes for managing climate-related risks, including those to make decisions to mitigate, transfer, accept, or control those risks. In addition, HeiQ plc does not currently have processes for prioritizing climate-related risks, nor for undertaking materiality determinations.	N/A	N/A
	c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	Compliant	HeiQ plc has not integrated identification, assessment or management of climate-related risks into overall risk management.	N/A	N/A
Metrics & targets	a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	Explain	Beyond reporting scope 1 and 2 emissions, HeiQ does not measure and report any other climate-related metrics. HeiQ Plc don't use an internal carbon price.	HeiQ Plc will develop metrics that align to the identified material risks and opportunities once the exercise outlined above in the strategy (a) section is done. We will consider the TCFD all sector and sector-specific guidance when identifying suitable metrics.	Disclosure of metrics used is a medium-term goal and will therefore be addressed earliest by the 2025 annual report.
	b. Disclose scope 1, scope 2 and, if appropriate, scope 3 greenhouse gas (GHG) emissions and the related risks.	Explain	HeiQ has reported its scope 1 and 2 emissions on page 18. To date we have not been able to measure our scope 3 emissions, but we estimate that they will account for over 40% of our total emissions and will therefore be considered material.	Given the complexity of assessing scope 3 emissions, addressing our scope 3 measurement is a long-term objective only.	Scope 3 reporting is a long-term goal only and will therefore be addressed earliest by the 2025 annual report or later.
	c. Describe the targets used by the organization to manage climate related risks and opportunities and performance against targets.	Explain	HeiQ currently does not use any climate-related targets.	As metrics used by the organization to assess climate-related risks and opportunities are not yet defined, the Company considers the target definition and measurement of performance against these targets as a medium-term goal to be implemented at the same time as the definition of the metrics to be measured and in alignment with identified risks and opportunities.	Definition of targets and tracking against them is a medium-term goal and will therefore be addressed earliest by the 2024 annual report.

Sustainability report continued

GRI content index

Statement of use

HeiQ PLC has reported the information cited in this GRI content index for the period 1/1/2022–31/12/2022 with reference to the GRI Standards.

The GRI version used is GRI-1 foundation 2021. HeiQ PLC reports on sustainability annually. This sustainability report was reviewed and approved by the Sustainability Committee of the Board of Directors. HeiQ PLC did not seek external assurance for this report.

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5. Omissions

There are no omissions in this sustainability report.

Contact for questions and remarks:

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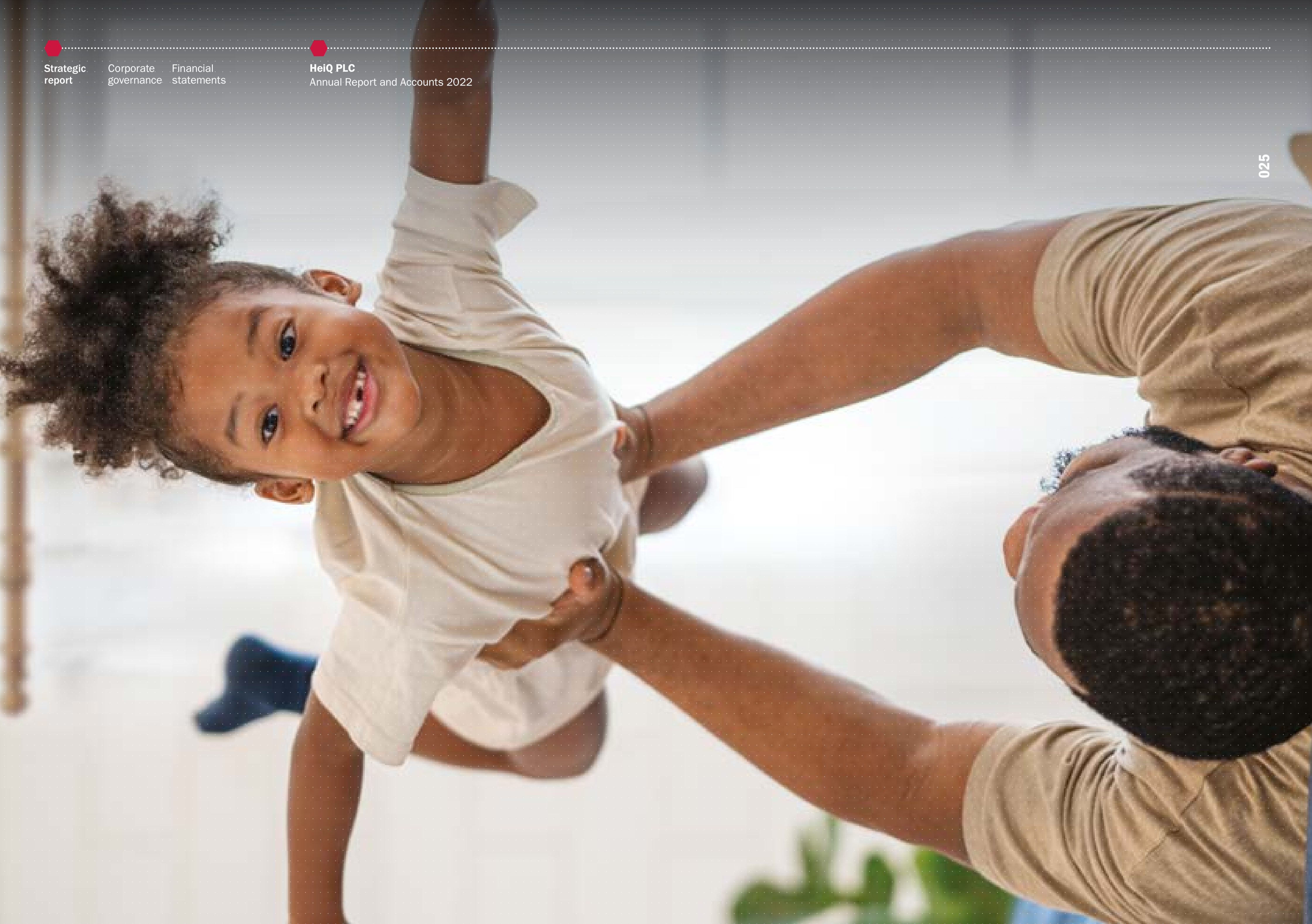


Section 172 statement

The Directors of the Company, as those of all UK companies, must act in accordance with a set of general duties. These duties are detailed in section 172 of the UK Companies Act 2006, which is summarized as follows:

"A director of a company must act in the way they consider, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole and, in doing so have regard (amongst other matters) to:

- the likely consequences of any decisions in the long term;
- the interests of the company's employees;
- the need to foster the company's business relationships with suppliers, customers and others;
- the impact of the company's operations on the community and environment;
- the desirability of the company maintaining a reputation for high standards of business conduct; and
- the need to act fairly as between members of the company."

Ongoing engagement with our stakeholders remains a priority and is critical to HeiQ's success.

The Directors of HeiQ consider, both individually and together, that they have acted in the way they consider, in good faith, would be most likely to promote the success of the Company for the benefit of its members as a whole having regard to the stakeholders and matters set out in s172 of the Companies Act 2006 ("section 172") in the decisions taken during the year ended 31 December 2022.

In doing so, the Directors have taken account of the likely long-term consequences of decisions made in the year, the interests of HeiQ's employees, the Company's business relationships with its clients, suppliers, and the impact of the Company's operations on the community and the environment. The Directors strive to maintain a reputation for exacting standards of business conduct, and the need to act fairly between members of the Company.

When formulating the Company's strategy, the Directors consider the longer-term and broader consequences and implications of its business on key stakeholders and society in general. The need to be a responsible company in this context is embedded in HeiQ's ethos and is the focus of the Company's ESG and Sustainability strategy.

Stakeholder engagement

As part of HeiQ's commitment to effective stakeholder engagement, and in accordance with section 172, the Company sets out its key stakeholder groups and corresponding approach to engagement with them.

HeiQ's stakeholder engagement strategies are tailored for each of these key audiences to continue a mutually beneficial dialogue with those who are invested in, or impacted by, the Company's operations.

The following paragraphs summarize how the Directors fulfill their duties. Information collected by management in the course of their interaction with any stakeholder group is typically considered by the Board at its regular Board meetings (there were nine such meetings in 2022). The Board holds an annual strategy workshop where the strategy of individual Business Units as well as the Group as a whole is presented by the Business Unit leaders, the Executive Directors and reviewed by the Board.

Shareholders

HeiQ seeks to develop a broad investor base with those who share our values and are supportive of our strategy and mission. Engagement with shareholders is a key element to fulfilling this objective. Besides engaging through the Company's shareholder meetings, Executive Directors engage with investors directly in face-to-face meetings in course of investor roadshows typically organized at least three times a year around the publication of financial results and the AGM. The Directors typically all attend the AGM in person, a decision that was taken to facilitate more effective face to face engagement with shareholders, allowing them to ask questions directly to the Board. Upon publication of financial results, the Executive Directors hold additional investor calls focused on retail investors with extensive Q&A sessions. In 2022, the Company organized two site visits, one to its operational headquarters in Switzerland, and one in the newly established HeiQ AeoniQ pilot plant in Austria where members of the executive team including Directors participated. Feedback on presentations and investor talks has been collected by the Company's broker and Investor Relations advisors and has been reported to the Board on an anonymous basis. This feedback has been taken into consideration for future shareholder communications and incorporated into the strategic decision-making process by the Board.

Employees

The Directors engage with the workforce and management team in different ways both directly and indirectly.

Periodical leadership meetings: The Executive Directors meet with the leadership team typically every other week to discuss operational questions including such concerning employees. Typically three times a year, the leadership team meets physically for more strategic discussions with the Executive Directors. Topics of interest and/or concern for the entire Board are reported by the Executive Directors at Board meetings.

Periodical meetings of the entire Board with executive management: Take place several times a year, the Board holds meetings with each Business Unit leader to discuss strategy and operational performance of the individual unit. This allows the Directors to make informed decisions on the performance of individual Business Units, consider longer term strategy for where to invest further or where to scale back.

Quarterly town hall meetings: The Group CEO hosts mandatory quarterly town hall meetings with all employees and participation of Directors with an extensive Q&A session. The Directors believe this is an essential forum to allow employees access to the upper tiers of management and the Board that they may not be afforded during their day-to-day work life. It is also a useful forum for the Board to receive honest and direct feedback on concerns from the ground up, facilitating discussion and longer-term planning around employee satisfaction in the workplace and specific issues that may need to be addressed.

Informal meetings with senior staff by individual Directors: Directors, in particular the Chair, periodically meet with senior staff members for an informal exchange on a one-to-one basis. Further, a **global quarterly newsletter** ensures that all employees and Directors are aware of important recent developments in the Group, including those of the headquarters as well as each local office.

Whistleblowing: HeiQ's whistleblowing policy provides a mechanism for employees to raise concerns in confidence and anonymously, with any serious matters being escalated to the Board to review and ensure arrangements for proportionate and independent investigation and for follow-up action if required.

Customers

Understanding our customers and their customers (consumers) and what matters to them is of paramount importance to HeiQ. HeiQ aims to establish long term win-win customer relationships which might, from time to time, require re-alignment and/or re-negotiation of critical business terms. The Group CEO therefore is involved in customer meetings on a regular basis and in particular is significantly involved in the business development which typically is done in collaboration with an application partner, i.e. with future customers like Hugo Boss in the case of HeiQ AeoniQ. The Executive Directors are further kept informed about any significant development with particular customers in course of their periodical meetings with the Leadership team. The Group CEO provides feedback on specific customers and market situation in general to the Directors in Board meetings. In meetings between the Board and the Business Unit leaders, Directors benefit from getting direct insight into customer issues from the Leadership team.

Suppliers

Fostering good business relationships with suppliers is important to the Company's success. HeiQ aims to establish long term win-win supplier relationships which might, from time to time, require re-alignment and/or re-negotiation of critical business terms. While the key contact to suppliers typically happens with the individual business leaders, the Group CEO meets periodically with major suppliers and is also involved in negotiations with them. This is the case in particular in relation to key strategic business development initiatives like HeiQ GrapheneX or HeiQ AeoniQ. Critical supplier situations are always discussed by the Executive Directors and the Leadership team in their regular meetings. The Board is briefed on any possibly critical situation as needed during their regular meetings.

Community and environment

HeiQ is proud to employ people in the communities in which we operate. We have product standards, policies and guidance covering the products we make to help ensure that they are manufactured safely, legally and to the required quality standards. Besides legally required standards. HeiQ operates a significant part of its business under ISO standards and additionally, most HeiQ products are also certified for voluntary quality standards such as ZDHC (Zero Discharge for Hazardous Chemicals), bluesign® and OEKO-TEX®. Various members of HeiQ's workforce are members of local industry associations (e.g. the Group CEO is a member of the Board of ScienceIndustries Switzerland (Business Association Chemistry Pharma Life Sciences) and HeiQ is a member of the European Silver Task Force.

Business conduct

As explained in more detail in Corporate Governance on page 55, values and culture are an integral part of our strategy and the Board strives to promote a culture based on high business conduct standards.

Acting fairly between members of the Company

Having assessed all necessary factors, and as supported by the processes described above, the Directors consider the best approach to delivering on the Company's strategy. This is done after assessing the impact on all stakeholders and is performed in such a manner to act fairly between the Company's members. The Board is committed to sharing information publicly so that all members of the Company have access to the same information at the same point in time and in accordance with the requirements of the Financial Conduct Authority's Listing Rules, the Disclosure and Transparency Rules and the UK Market Abuse Regulation.

Key Board decisions and Section 172 considerations

The following are examples of some of the principal decisions made by the Board during the year under review which demonstrate how employee interests, the need to foster business relationships with other key stakeholders and other Section 172 matters have been taken into account in discussions and decision making.

Definition of Business Units

The Board agreed to form three distinctive Business Units out of its commercial business, designed to drive activities and measure performance in a more focused way. The objective is to allow these distinct business units to flourish so as to have a higher impact on society and the environment with our sustainable product offerings. It also aims to describe the HeiQ's diverse activities in a simpler way for the benefit of all stakeholders, including employees.

Sale of a minority shareholding in HeiQ AeoniQ GmbH to Hugo Boss

In February 2022, the Board decided to enter into a partnership agreement with Hugo Boss in order to support the commercialization of our HeiQ AeoniQ technology. The agreement includes the sale of minority shareholding in HeiQ AeoniQ GmbH. The decision to do so was taken after considering all stakeholder interests. The onboarding of a major brand and customer is expected to accelerate the scale-up of the technology significantly from which the community and environment will profit significantly as the technology aims to replace polyester with a cellulose yarn and thus reduces the carbon footprint of textiles significantly. In a similar way, customers will benefit from the faster go-to market time as many brands in the textile industry have themselves committed to a "net-zero" strategy. HeiQ AeoniQ™ will enable them to achieve these goals and therefore scaling-up HeiQ AeoniQ rapidly is in the best interest of customers. Also investors' interests have been considered as the transaction supports the direct financing

on this scale-up, supports the valuation of the technology and de-risks the whole project as strong partners are joining in.

Change of Auditor

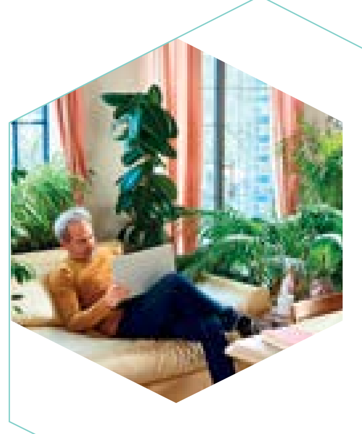
As announced November 7, 2022 and following a period of significant international expansion and as our activities have become increasingly complex and diversified, the Board decided to change the auditor of the Company for the financial year 2022 based on the recommendations from its Audit Committee. Taking the decision, interest from internal as well as external stakeholders, in particular shareholders, have been considered. Given the significantly increase complexity within the Group, the ambitious growth plans including the foreseen scale-up of HeiQ AeoniQ, as well as based on the review on the previous auditor's work by the FRC, the Board concluded that it is appropriate to identify an auditor with greater capacity to understand and work with HeiQ to address the challenges the company faces. Deloitte LLP was appointed as the Company's new auditor for the financial year 2022. As discussed in the Audit Committee report, Deloitte LLP is not seeking re-appointment at the next annual general meeting.

Expansion of Terms of Reference of the Remuneration Committee

The Directors took the decision during the year to expand the Terms of Reference of the Remuneration Committee to be more widely involved in the structuring of HeiQ's incentive schemes with a view providing additional governance and support around effectively motivating and rewarding employees. This expansion of terms was decided in order to ensure that all incentives offered to the workforce of HeiQ are well aligned with investors' interests and that employees on all levels are incentivized along the same principles across the Group.

Option grant under the long-term incentive schemes

The Board, as advised by the Remuneration committee, agreed to grant options over ordinary shares in the Company to a broader range of employees. The intention behind this decision was to align employees with the longer-term success of the Company. Options have been granted to 26 individuals, representing more than 10% of the entire workforce. Further details on granted options can be found in Note 27 to the financial statements. Granting options to a wider range of employees is a way to incentivize employees driving the Group's future performance in a way that is aligned with investors' interests.



Navigating a challenging market with a focused approach

Xaver Hangartner
CFO

2022 was a difficult year where our financial performance was impacted by highly challenging market conditions and fell short of expectations. Sales suffered from reduced market demand – particularly in the last quarter of the year – while we continued to invest into our key innovation initiatives to maintain the long-term growth potential of the Group. After achieving a revenue growth of 10.0%[R] in the previous year, revenues reduced by 14.8% in 2022 to US$47.2 million (2021[R]: US$55.4 million).

Following several acquisitions, the Group has grown significantly in terms of capabilities, technology platforms and growth potential but also in terms of organizational complexity. The Group has seen a number of businesses with different systems, processes and cultures joining the Group since 2017 and in particular during 2021. In order to integrate the different businesses, the Group commenced the harmonization of processes, systems and operating practices across the organization in 2022. Furthermore, the significant drop in market demand required us to review the valuation of intangible assets and our approach to inventory valuation as we envisaged a short-term fall in demand for certain of our technologies. Accordingly, despite our continued confidence in the mid- to long-term value potential of our market offerings, we have revised forecasts used in certain valuation models related to intangible assets as well as inventory. As a result, the Board has concluded that it is appropriate to impair various goodwill positions as well as inventory positions where we believe quantities on hand exceed demand for the next twelve months. While preparing annual accounts 2022, including reviewing aspects of accounting which rely on significant judgment, the Company has also identified prior period errors that require correction and thus lead to a restatement of prior period financial statements. These factors have contributed to a significant delay in the financial reporting process and the finalization of the work by our auditors.

The Group deemed it appropriate to defer the recognition of revenues (and profits) from certain partnership agreements related to HeiQ AeoniQ™ to future periods. It was concluded that it is more appropriate to recognize the milestone-payments over time during the agreed exclusivity period rather than at a point in time upon achieving the agreed technical development milestones. Accordingly, US$2.0 million recognized in H1 2022 has been deferred and will be recognized over a 4-year period commencing in H2 2022 and an additional US$2.0 million previously expected to be recognized in H2 2022 has also been deferred.

Accounting aspects relying on significant judgment and estimations that materially affected our 2022 financial performance

Impairment of Goodwill

Considering the challenging trading conditions, we have determined a cumulative impairment charge of US$13 million to be appropriate as of December 31, 2022. As we have corrected the underlying framework for modelling valuation assumptions, we have also applied the same approach retrospectively to the FY 2021 accounts and have concluded that of the cumulative impairment charge of US$13 million, US$2.4 million should be charged against income in 2021 instead of 2022. Further details on the impairment charge can be found in Note 18 and Note 2 (restatement of 2021) to the financial statements.

Allowance on inventory

Due to the deterioration in market conditions, the Group has limited the demand forecast period to assess whether a good is sellable or not to twelve months. Previously, the Group applied a longer period of up to three years.However, the Board concluded that this practice is no longer appropriate given the deterioration in market conditions. This has resulted in recording a significant allowance on inventory of US$4.9 million in 2022. This non-cash expense has a significant impact on the gross margin for 2022 and relates mainly to the raw materials for a limited number of finished products.

Accounting for take-or-pay contracts

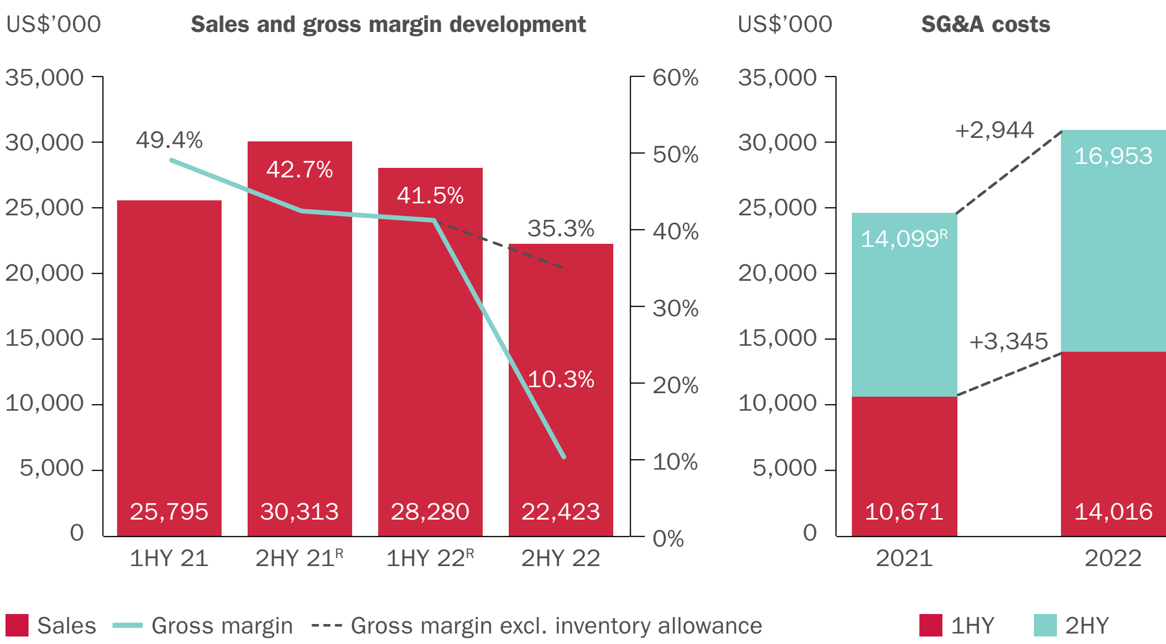
Certain customers have agreed, under a “take or pay” contract, to purchase a specified minimum quantity of particular products over a specified period of time, usually in exchange for a specified exclusivity during the same period. However, the customer must pay for the full quantity stated in the contract, irrespective of whether the customer takes delivery of the minimum quantity to which they are committed. Upon payment of the full amount, the contract allows customers to defer their unexercised rights and to consume the remaining units within a twelve-month period, although there is no compulsion to do so. Revenue recognition for the shortfall items is deferred until the customer consumes the units, or, in case of expiry of the rights, typically twelve months after payment by the customer. This represents an amendment to the accounting policy for such contracts as disclosed in Note 2 and has led to prior year restatements as discussed further below.

Consequently, the Directors have also concluded that no revenue should be recognized for a long-term customer contract that the Group is enforcing by way of legal claim in court as the customer has not shown a willingness to execute any business as stipulated in the signed agreement. This has led to a de-recognition of revenue and profits in 2021 (US$0.6 million) and H1 2022 (US$0.7 million).

Financial Performance

	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000 (restated)
Revenue	**47,202**	55,419
Gross profit	**13,457**	25,397
Gross profit margin	**28.5%**	45.8%
Selling and general administrative expenses	**(30,969)**	(24,680)
Impairment losses	**(12,381)**	(2,454)
Net other income/expenses	**648**	383
Operating loss	**(29,245)**	(1,354)
Operating margin	**(62.0%)**	(2.4%)
Loss after taxation	**(29,814)**	(1,373)
Adjusted EBITDA	**(12,174)**	4,545
EBITDA margin (adjusted)	**(25.8%)**	8.2%

Financial review continued



Financial Performance

Revenues

Market demand for most of our businesses, with the exception of the Chinese market due to lockdowns imposed by the government, was not significantly impacted by geo-political developments, inflation and rising interest rates until late in the year on the back of consumer demand and inventory build-up across the value chain. After the COVID-19 pandemic and supply-chain disruptions in the previous years, industry players have been building up much higher inventory levels than in the past to mitigate possible supply issues which has supported demand. As such, in the first half of the year, HeiQ was able to deliver a revenue growth of 6.8% (H1 2022R vs. H1 2021) despite an extremely low level of business activity in China (lockdowns). As inflation continued to increase rapidly in H2 2022, market sentiment weakened based on increasing global recession concerns. Late in the year, this led to a sudden halt in business along the entire supply chain, particularly in the textile industry which, in terms of revenue, is still the most important industry segment for HeiQ. Brands started to cancel orders as they faced uncertain consumer demand coupled with very high levels of inventory. This caused a sudden and severe decrease in manufacturing activity across the value chain. Consequently, revenues for H2 2022 were down 33.7% compared to H2 2021R and down 28.7% compared to H1 2022R. Given the high inventory levels seen in Q3 2022, we expect demand for our functional ingredients to remain subdued for 2023.

Gross margin

Gross margins were 28.5% for the full year (2021R: 45.8%). In H1 2022R margin was stable compared to H2 2021R (41.5% vs. 42.7%). The increased inventory allowance due to the change in the valuation approach had a negative impact on the gross margin in H2 2022 which stood at 10.3%. Excluding the US$4.9 million allowance on inventory recorded in 2022, the gross profit for FY 2022 would have been US$18.4 million and the corresponding gross margin would have been 38.9% vs. 45.8% for the full year 2021R.

Sales and General Administration Expenses

As we have disruptive technologies with high value and market potential in our innovation pipeline, we continued to invest during 2022 in our future and in value creation although we have both prioritized and adjusted the scope of projects as revenues and related cash generation have suffered. Our Sales and General Administration expenses ("SG&A") have grown in 2022 to US$31.0 million, an increase of US$6.3 million or 25.5% (2021R: US$24.7 million).

SG&A in H1 2022R was US$ 14.0 million, stable compared to H2 2021R (US$ 14.0 million) but significantly higher than in H1 2021 (US$10.7 million). Approximately US$1.9 million of this increase in H1 2022 (vs H1 2021) relates to the full year inclusion of acquired companies. Further, in the course of 2021 we invested in our skilled workforce, including the build-up of the HeiQ AeoniQ™ fiber team which increased the general cost base for H1 2022 by another US$1.4 million compared to H1 2021.

In H2 2022, SG&A amounted to US$17.0 million which represents an increase of US$3.0 million against H1 2022R and US$3.0 million against H2 2021R. Audit costs for FY 2022 increased by about US$1.0 million compared to FY 2021.

Impairment losses

Impairment losses have been recorded both on intangible assets (US$11.7 million) – mainly related to goodwill impairments as explained above – as well as on property, plant & equipment (US$0.7 million) as hygiene mask production equipment has been impaired due to a significant decline in demand.

Other Income/Expenses

Other income and other expenses predominantly relate to foreign exchange gains on working capital (other income) and foreign exchange losses (other expenses). Other expenses further include a write-off of intangible assets.

Overall, and including goodwill impairments, HeiQ reports an operating loss of US$-29.2 million for the year 2022 compared to an operating loss of US$-1.4 million in 2021[R].

Reporting as per new Business Unit structure

As explained in the Chair and CEO statement, the Group has re-organized its management structure into distinct Business Units and therefore has also amended its disclosures on reported segments.

HeiQ reports four segments: the three Business Units as well as "Other activities". Other activities include the Innovation Service function, Business Development initiatives ("Ventures") as well as costs not allocated to one of the three Business Units, including goodwill impairments. In 2022 and 2021, SG&A expenses have been allocated to Business Units only to a limited extent with focus on commercial activities. For 2023 and going forward, the Group intends to allocate costs more extensively to the three Business Units.

	Textiles & Flooring		Life Sciences		Antimicrobials		Other activities		Total	
US$'000	**2022**	2021*	**2022**	2021*	**2022**	2021*	**2022**	2021*	**2022**	2021*
Revenue	**33,870**	39,773	**6,894**	10,115	**3,577**	3,379	**2,861**	1,792	**47,202**	55,419
Operating profits (loss)	**979**	14,196	**(1,078)**	1,438	**53**	1,106	**(29,199)**	(18,096)	**(29,245)**	(1,354)
Finance result									**(590)**	(35)
Loss before taxation									**(29,835)**	(1,389)
Taxation									**21**	16
Loss after taxation									**(29,814)**	(1,373)

* As restated.

Revenues within the Textiles & Flooring business unit decreased by US$5.9 million (-15%) to $33.9 million in 2022. This was driven by two previously mentioned main contributors: COVID-19 related lockdowns in one of our main markets, China, as well as the unprecedented, industry wide decrease in demand along the entire value chain towards the end of the year.

Revenues within the Life Sciences business unit decreased by US$3.2 million (-32%) to $6.9 million in 2022 compared to 2021[R]. This decrease reflects the significantly lower sales of hygiene masks in 2022 which was partly offset by an increase in sales of HeiQ Synbio products.

Revenues within the Antimicrobials business unit increased by US$0.2 million (+5.9%) to US$3.6 million. Revenues allocated to other activities encompass mainly Innovation Services provided to 3rd party customers.

Adjusted EBITDA

Reported adjusted EBITDA loss was US$-12.2 million for 2022 compared to a positive EBITDA of US$4.5 million in 2021[R].

EBITDA is a way of measuring cash generation. HeiQ therefore adjusts EBITDA for share options and rights granted to Directors and employees and significant non-cash items being impairments of goodwill and intangible assets.

Adjusted EBITDA US$'000	**2022**	2021 (restated)
Operating loss	**(29,245)**	(1,354)
Depreciation	**2,220**	1,971
Amortization	**1,435**	976
Impairment losses and write-offs	**13,278**	2,454
Share options and rights granted to Directors and employees	**138**	498
Adjusted EBITDA	**(12,174)**	4,545

Statement of Financial Position

Total assets were US$71.1 million as of December 31, 2022 (December 31, 2021[R]: US$94.1 million) with equity amounting to US$40.3 million and liabilities of US$30.8 million as of December 31, 2022 (December 31, 2021[R]: US$59.5 million equity and US$34.6 million of liabilities). This corresponds to an equity ratio of 57% (2021[R]: 63%).

Non-current assets decreased from US$47.3 million (December 31, 2021[R]) to US$38.7 million as of December 31, 2022, mainly driven by the impairment of intangible assets.

Current assets decreased by 30.9% to US$32.4 million as of December 31, 2022 (US$46.9m as of December 31, 2021[R]). Trade receivables reduced by US$8.2 million to US$6.5 million as of December 31, 2022 (2021[R]: US$14.7 million). The cash balance decreased by US$6.1 million year-on-year and was US$8.5 million as of December 31, 2022 (2021: US$14.6 million).

The decrease in total liabilities was mainly driven by the settlement of deferred consideration related to the acquisitions made in 2021. Total liabilities decreased by US$3.8 million (11.0%) from US$34.6 million as of December 31, 2021[R] to US$30.8 million as of December 31, 2022. Net debts (including lease liabilities) amount to US$3.7 million as of December 31, 2022 (December 31, 2021[R]: net cash position of US$3.7 million).

Cash Flow Statement

As a result of sales below expectation coupled with the (budgeted) increase in our cost base, net cash generated from operating activities in the year 2022 was negative and amounted to US$-2.5 million (2021: US$3.4 million).

Cash used in investing activities amounts to US$8.8 million in 2022 (2021: US$12.7 million) and reflects the continued investment in building long-term value. With US$3.9 million the development and acquisition of intangible assets accounts for the largest share of investment activities. This includes internal R&D activities qualifying for capitalization but also the acquisition of intellectual property rights to further complement the hygiene range of our Antimicrobial business. We also invested US$3.4 million of cash in plant and equipment, predominantly related to the HeiQ AeoniQ™ pilot plant located in Austria. Consideration paid for acquisitions (US$1.6 million) relate to earn-out and installment payments for acquisitions executed in previous periods.

Net cash from financing activities amounted to US$5.9 million (2021: US$-1.3 million net cash used). The largest portion of proceeds is related to the sale of a 2.5% equity stake in HeiQ AeoniQ GmbH to Hugo Boss in H1 2022 (US$4.8 million). Proceeds from borrowings (net) amount to US$2.6 million and relate mainly to fixed advances with a duration of up to 3 months.

The Group reports a cash balance of US$8.5 million as of December 31, 2022 (December 31, 2021: US$14.6 million).

Prior Period Adjustments

As describe further above, the Directors have concluded that certain adjustments to prior period financial statements should be recorded. The cumulative impact on the prior period financial statements (FY 2021) is as follows.

In US$	As published previously	Total restatements	As restated
Revenue for FY 2021	57.9 million	(2.5 million)	55.4 million
Income (loss) after taxation for FY 2021	2.5 million	(3.9 million)	(1.4 million)
Total assets as at December 31, 2021	101.8 million	(7.7 million)	94.1 million
Total equity as at December 31, 2021	64.6 million	(5.1 million)	59.5 million
Total liabilities as at December 31, 2021	37.2 million	(2.6 million)	34.6 million

These corrections resulted in a significant restatement of the income after taxation. Further details of these corrections as well as additional corrections that did not result in material restatement of the income after taxation are disclosed in Note 2 to the financial statements.

Restatement in respect of a significant take-or-pay contracts

As disclosed in Note 2 to the financial statements, the Group has renegotiated a significant take-or-pay contract after the balance sheet date. As a result of renegotiations, the Group has effectively waived unpaid accounts receivable in exchange for a right of first refusal on supply of a wide product range to a large industry player with the expectation to grow this multiple million US$ account significantly over the coming years.

The company has reviewed its historic accounting for this contract. The conclusion of this review is that amounts recognized as revenue in 2021 and accounts receivable as at December 31, 2020 and 2021 were overstated as the criteria for revenue recognition under IFRS 15 had not been met. There are also associated impacts on costs of sales, accrued liabilities and tax. The Group has determined that revenues of US$1.8 million and profits of US$0.7 million recognized in 2021 required reversal. Additional revenues and profits of US$0.7 million have been derecognized in relation to another take-or-pay contract in relation to which the Group has filed a claim against the customer in court.

Restatement in regards of goodwill impairments

As highlighted further above and discussed in more detail in Note 2 to the financial statements, the Directors concluded that a portion of the goodwill impairments identified in preparation of the 2022 Annual Accounts should have been identified during the preparation of the 2021 financials, if all available information at the point of publishing the annual report 2021 had been taken into consideration. Consequently, a retrospective review of the 2021 goodwill impairment tests was performed. It was concluded that a portion of the identified impairment amounting to US$2.3 million is to be allocated to the 2021 financial statements.

Going Concern Assessment

To manage its cash balance, the Group has access to credit facilities totalling CHF9.0 million (approximately US$9.8 million as of September 30, 2023). The credit facilities are in place with two different banks and both contracts have materially the same conditions. The facilities are not limited in time, can be terminated by either party at any time and allow overdrafts and fixed cash advances with a duration of up to twelve months.

As of September 30, 2023, the Group has drawn CHF6.3 million of the facilities (CHF2.4 million as December 31, 2022) as follows:

Maturity dates of used credit facilities:	Amount
November 27, 2023	CHF 4.5 million
June 17, 2024	CHF 0.8 million
September 30, 2024	CHF 1.0 million
Total	**CHF 6.3 million**

The facilities are not committed, but the Board has not received any indication from financing partners that facilities are at risk of being terminated. Furthermore, the Board is in discussions with financial institutions to replace the currently uncommitted credit facilities by committed, long-term facilities, but the outcome of these discussions remain uncertain.

The Group's directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future and operate within its credit facilities for a period of 12 months from date of approval of these financial statements. Nevertheless, the Board acknowledges the uncommitted status of the facilities which could be terminated without notice during the forecast period requiring the refinancing of debts as per above maturity dates, indicates that a material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern. Further disclosure on the going concern assessment are made in Note 3b to the financial statements.

Xaver Hangartner
Chief Financial Officer

R Details on restatements of prior year financial information are disclosed in Note 2 to the Financial Statements (pages 84 to 88). Restated prior year financial information in the Strategic Report (pages 2 to 43) and Corporate Governance section (pages 44 to 65) of this Annual Report is marked with an asterisk as follows "R". The same applies to financial information for the six-months interim period ending June 30, 2022 which has been restated as per the 2023 interim accounts published on the same date as this Annual Report

Corporate risk management is integral to our business

A comprehensive risk management strategy is an essential part of a truly sustainable business. As such, HeiQ has adopted a systematic method of identifying, analyzing, evaluating, treating, monitoring and communicating risks in a way that will enable us to minimize losses and maximize opportunities.

Risk management will not be able to eliminate risks entirely, but it will enable us to identify, prioritize and manage risks and opportunities in a way that a possible impact can be absorbed by the organization.

Risk management does not only focus on preventing erosion of value and addressing and minimizing risk to an acceptable level, but it can be a tool to set strategies and identify business opportunities to create and maintain value. With our diverse range of products and specialized knowledge in material science, we create innovations according to the global megatrends and act as a solution provider for our downstream customers to provide products that meet the latest consumer needs. For example, at the beginning of the COVID-19 pandemic, were able to quickly identify an innovation that could make textiles more hygienic and such product had generated high demand. By responding to the new global situation, we were able to build new businesses around the innovation at fast pace.

Risk appetite

The Board has sought to frame its risk appetite in terms of technologies and markets in which it is prepared to make investments. In markets where the Group is already commercially active, the Board typically would expect that investments are financed from cash generated from the respective commercial operations. In case of investments into new technologies and ventures outside of existing commercial businesses, the Board would expect that project-financing from external parties like grants and subsidies as well as contributions from technology and scale-up partners is limiting own investments to a level that is not jeopardizing the Groups mid-term financial health in terms of liquidity and debt/equity perspective.

Risk assessment is an item on the leadership team's agenda on a periodical basis, and a risk report is reviewed and discussed in Board meetings at least twice a year. As risks can arise from many different angles, they need to be identified top down and bottom up. Having said that, while it is necessary to have a formal risk management system in place throughout the organization, managing risk is also the responsibility of each employee.

Risk management framework

Identify the risks

Identification of risk is driven bottom-up. In its periodical management meetings typically held every other week, members of the leadership team report on "red flags" as well as emerging risk in their area of responsibility. Based on red flags and emerging risks, the Executive Directors review and update the Group's risk report for further discussion and review by the Board which typically happens twice a year.

The Group lists its key risk in five main categories as follows:

- Environmental and hazard risks
- Strategic risks
- Operational risks
- Financial risks
- Legal risks

Measure the risk regarding likelihood of occurrence

Principal risks are identified and assessed individually and measured against the likelihood of them occurring and the foreseeable impact if they do occur. Assessing the likelihood and impact of principal risks, the Board uses the following classifications:

Risk	Impact
Impact	High
	Medium
	Low
Likelihood	High
	Medium
	Low

Examine solutions

Consider the various solutions to manage each risk and evaluate the optimal balance between cost and effectiveness. Organizations usually have the option to accept, avoid, control or transfer a risk. Solutions how to deal with risks are typically suggested by the leadership team in line with the risk appetite of the Group and reviewed by the Board.

Manage the identified risk

Once solutions are listed and prioritized, we allocate resources and personnel, including senior management, possibly with external expertise as appropriate. A process is established to implement the solution and actively manage the risk.

Monitor the results on an ongoing basis

Since our organization, the environment and potential risks are constantly changing, risk management is a continuous process which needs to be monitored regularly. A formalized process ensures a more complete picture of the organization which enables more informed decision-making.

Emerging risks are to be identified and monitored by the leadership team and expected to be reported as soon as they have the potential to become a principle risk (see "Identify the risks" above).

Principal risks and uncertainties

The Board has identified the following principal risks that include emerging risks and which are discussed in more detail on the following pages.

Risk category		Principal risk	Impact	Likelihood
Strategic risks	1	Delivery on growth strategy/growth rates not sustainable	High	Medium
	2	Increase in competition	Medium	Low
	3	Geographical risks	Low	High
	4	IP protection and first-mover advantage	Medium	Low
	5	Regulatory risks	High	Medium
	6	Reputational risks and failure to build brand equity	High	High
Operational risks	7	Innovation pipeline	High	Low
	8	Supply chain disruptions	High	Medium
	9	Personnel/Workforce	Medium	High
	10	Interruption of IT system operations	Medium	Medium
Financial risks	11	Liquidity risk	High	Medium
	12	Currency risks	Low	Medium
Legal risks	13	Product liability	Medium	Low

Principal Risk	Description	Controls/Mitigation	Impact	Likelihood	Trend
.01 Delivery of growth strategy/growth rates not sustainable	If the Group does not successfully implement its growth strategy for a high margin business, this could have a material adverse effect on the business, financial condition and operating results. The growth strategy foresees to re-invest profits from commercialized products into innovation to further grow the company.	Clear communication of strategy and alignment throughout the organization with an Executive VP member sponsoring each of the defined strategic initiatives. Leadership culture based on objectives that are aligned with the strategy.	High	Medium	Increase due to lower consumer demand, originating from higher inflation and higher interest rates.
.02 Increase in competition	As competing products come to market in direct competition to HeiQ's products, particularly from large global companies, this may result in a reduction in revenues and associated profit margins. HeiQ faces substantial competition throughout our business from international and domestic companies.	HeiQ's innovations typically open up new markets and thus the Group enjoys a first-mover advantage. HeiQ, with its three-in-one approach (innovation, production and marketing), positions itself as a partner to brands over the entire life cycle of a technology, which provides a lock-in effect.	Medium	High	Increase due to strong overall market demand erosion, leading competition to fight fiercely over existing business.
.03 Geographical risks	HeiQ operates in a variety of countries which have different laws, taxes and markets at different levels of maturity, together with a range of competitors and customer expectations. HeiQ's business and results of operations are affected by changes in both global economic conditions and the individual markets in which we operate. Terrorist acts, civil unrest and other similar disturbances, as well as natural disasters, can impact economic conditions and consumer confidence, degrade infrastructure, disrupt supply chains and otherwise result in business interruption. A variety of factors may adversely affect results of operations and financial conditions during periods of economic uncertainty or instability, social or labor unrest or political upheaval in the markets in which we operate. HeiQ has no business in Ukraine and Russia and thus no direct exposure to the conflict that started in February 2022.	HeiQ's strategy includes developing a global footprint for innovation and manufacturing, as well as sales and distribution channels. This includes our own presence, as well as cooperation with third parties, such as distributors. This ensures that the Group is able to serve a given market through different channels, both from within and outside of the respective geographical area. We are developing a local presence in key markets to ensure local markets and regulatory frameworks (including laws, taxes, etc.) are well understood and addressed appropriately.	Low	High	Increase due to more economic volatility leading to protectionist policies and technical trade hurdles.

Principal Risk	Description	Controls/Mitigation	Impact	Likelihood	Trend
.04 IP protection and first-mover advantage	Any failure to substantiate or assert HeiQ's intellectual property rights could make the business less competitive and may have a material adverse effect on net revenue. HeiQ may face challenges to its intellectual property rights from third parties. If we are unable to successfully defend against allegations of infringement, we may face various sanctions, including injunctions, monetary sanctions, product recalls and alterations to our products and/or packaging, which could result in significant expense and negative publicity.	HeiQ's business relies on protecting our brands and claims through a combination of intellectual property rights, unique market positioning, trade secrets and freedom to operate strategies. It is key to the Group's intellectual property protection strategy to constantly innovate and further develop our existing product portfolio to maintain a first-mover advantage.	Medium	Low	Reduce due to new patent applications, purchase of IP, new trade secrets generated, and new ingredient brands registered.
.05 Regulatory risks	The manufacturing and marketing of chemicals and medical devices are subject to medical, biocidal, chemical and environmental regulations and permits. Such regulations change frequently and require HeiQ to invest in our regulatory portfolio in order to maintain access to markets and licenses to operate. Failure to do so may result in restricted market access or prevent HeiQ from manufacturing our products in the relevant plants. Regulators in different jurisdictions might restrict use of certain ingredients that are included in HeiQ products and disallow marketing of respective products in different markets.	We follow regulatory developments closely and actively manage our product portfolio and innovation pipeline accordingly. It is an integral part of HeiQ's strategy to innovate and replace current solutions with "greener", future-proof technologies. We engage actively in regulatory discussions in industries in which we operate, and we have recruited additional experts to resource increased	High	Medium	Stable to increase due to more frequent policy changes following the pandemic who resourced regulatory bodies with more staff.
.06 Reputational risk/and failure to build brand equity	Substantial harm to HeiQ's reputation may materially adversely affect our business. Various factors may adversely impact HeiQ's reputation, including product quality inconsistencies. Product defects may occur due to human error or equipment failure, among other things, which may be outside of our direct control. Reputational risks may also arise with respect to the methods and practices of third parties that are part of HeiQ's supply chain, including labor standards, health, safety and environmental standards, and raw material sourcing. HeiQ may also be the victim of product tampering. Moreover, third parties have sold or may sell products that are counterfeit or unauthorized versions of HeiQ's products or inferior "lookalike" products that resemble HeiQ's. Consumers may confuse our genuine products with such unauthorized products, which may adversely affect HeiQ's reputation. Reputational risk could also arise from not being able to meet financial and non-financial reporting requirements set-out by the Stock Exchange or other regulatory bodies.	We have a clear strategy and policy in regard to communication, both in terms of product marketing as well as at corporate level. We actively manage claims that are allowed in different jurisdictions for different products, and these are also reflected in trademark license agreements with our customers. HeiQ actively follows and manages communication both off- and online to ensure potential issues can be addressed in a timely and appropriate way.	High	High	Increase due to more stringent laws, regulations and policies needing to be followed. The delay in financial reporting on the year 2022 also has led to an increase of this principal risk.

Principal risks and uncertainties continued

Principal Risk	Description	Controls/Mitigation	Impact	Likelihood	Trend
.07 Innovation pipeline	Bringing innovations to market at high speed is key to the Group's growth strategy and market positioning. Failure to launch innovations at a high pace might have a material adverse impact on the Group's growth and operating results.	HeiQ has a rich pipeline of innovation ideas and a clear, lean process for assessing and developing these ideas into product offerings. The Innovation Advisory Board prioritizes innovation projects based on technical feasibility and market potential, and the Group's network of research partners allows it to access knowledge needed for each project.	High	Low	Stable to reduce due to recent major innovation product launches and full pipeline of disruptive innovations.
.08 Supply chain disruption	We face the risk of supply chain interruptions and disruptions in our production facilities, which could materially and adversely affect the results of operations. Significant disruptions to suppliers' or our own operations, such as those resulting from natural catastrophes, outbreaks of diseases, acts of war or terrorism may affect our ability to source raw materials and negatively impact our costs. The failure of suppliers to fulfill their contractual obligations in a timely manner may result in delays or disruptions to our business. Replacing suppliers may require a new supplier to be qualified under industry, governmental or HeiQ's own internal standards, which may take time. In addition, a number of our facilities are critical to our business. Major or prolonged disruption at those facilities, whether due to accidents, sabotage, strikes, closure by government agencies or otherwise, could materially and adversely affect operations. Moreover, manufacturing sites are subject to supervision by regulatory agencies, on both an ongoing and ad hoc basis. If the Group is unable to obtain or produce sufficient quantities of a particular product at specifically approved facilities, whether due to disruption to, or failure of, manufacturing processes, or otherwise, it may fail to meet customer demand on a timely basis, which could undermine sales and result in customer dissatisfaction and damage to reputation.	We source raw and packaging materials and finished goods from a wide variety of international chemical and packaging companies and co-producers. We source key materials whenever possible from at least two different suppliers. We periodically assess potential for backwards integration of materials that allow either a material cost or strategic advantage, including security of supply. We forecast our inventory holding of critical raw materials with our key customers and place larger orders with key suppliers.	High	Medium	Reduce due to reduced consumer demand, returning to the market overcapacities leading to reduced costs and availability.

Principal Risk	Description	Controls/Mitigation	Impact	Likelihood	Trend
.09 Personnel/ Workforce	HeiQ's business depends, in part, on the ability of executive officers and senior management to provide uninterrupted leadership and direction for the business, and, in particular, on the ability to recruit, train and maintain qualified personnel for product research and development. This need is even more acute in the context of a growing business and in the strategic internal reorganizations and resource planning programs to promote and manage such growth. HeiQ's ability to attract and retain key management and other personnel is dependent on factors including prevailing market conditions, attractiveness of others as potential employers, working conditions and culture, and the ability to offer attractive compensation packages.	We have a structured hiring process to ensure the cultural fit of new hires. HeiQ offers key senior management and talent participation via our share option plan to align incentives of individual employees to that of the Group. HeiQ supports employees' growth with professional and personal development opportunities. HeiQ fosters an inclusive, meritocratic culture in which employees are encouraged to contribute and participate. We also offer flexible work models facilitating compatibility of work with private and family life.	Medium	High	Stable to increase Uncertain global economic outlook leads to propensity to review employment terms.
.10 Interruption of IT system operations	As a technology driven, global acting Group, HeiQ relays on various IT system to facilitate its operations and management if information. Interruption of IT system might lead to a significant negative impact on operational performance with related adverse impact on financial performance. Interruption of IT system could be caused by external cyber attacks as well as by issues around improvement, update or change of IT systems leading to unforeseen issues.	The Group invests significantly in cyber security – both in internal resources and training of employees as well as professional services related to cyber security. The CRM and ERP system migration is supported by external consultants to help navigate through the transition period and ensure a smooth implementation of new systems.	Medium	Medium	Increase Number of global cyber attacks from external sources are increasing in general and therefore more likely to occur also for HeiQ. With the change of our global CRM and ERP systems in 2022/2023, the likelihood for interruptions related to system changes is also higher during the transition period.
.11 Liquidity risk	As an Innovator and growth company, the Group is depending on sufficient financing at all time to be able to execute on its strategy. Innovations are typically expected to be financed from operating cash flows. In a situation where marked demand for our products deteriorates significantly within a short period of time, the Group is at risk of insufficient operating cash flows to finance all innovations and requires credit lines to bridge financing requirements until demand is recovered or cost base is adjusted. In such a situation, cancellation of existing credit lines could have a material impact on the Group's liquidity position.	The Group monitors cash balances and cash flows constantly. Further, it is in periodical contact with its financing partners to ensure appropriate credit facilities are available. Large investments like technology scale-ups are only executed once sufficient project-related financing (equity of debt) is available.	High	Medium	Increasing – with rising interest rates as well as the challenging market conditions for our commercial businesses, receiving additional financing has become more difficult.

Principal risks and uncertainties continued

Principal Risk	Description	Controls/Mitigation	Impact	Likelihood	Trend
.12 Currency risks	HeiQ Group operates mainly in CHF, EUR, CNY, TWD and US$ and reports in US$. Consequently, changes in the GBP, CHF, EUR, CNY, TWD and US$ exchange rates will impact on the earnings of the Group. The exchange rates are affected by numerous factors beyond the control of the Group, including international markets, interest rates, inflation, and the general economic outlook and, as such, the Group may not be able to adequately manage these risks in some circumstances.	The Group as far as possible aligns operational cash in- and outflows in the respective currencies to achieve a natural hedge. Remaining short or long positions are monitored centrally and subject to hedging where appropriate.	Low	Medium	Stable due to globally aligned monetary policies and natural currency hedging by operating in multiple locations.
.13 Product liability	As a product manufacturer, HeiQ is subject, from time to time, to certain legal proceedings and claims in relation to our products, including as a result of unanticipated side effects or issues that become evident only after products are widely introduced into the marketplace. HeiQ may be required in the future to pay compensation for losses or injuries that are allegedly caused by our products. Product liability claims may arise, among other things, from claims that products are defective, contain contaminants, provide inadequate warnings or instructions, or cause personal injury to persons or damage to property. Product liability claims, if resolved unfavorably, or if settled, could result in injunctions and/or may require HeiQ to pay substantial damages and related costs, including punitive damages, as well as result in the imposition of civil and criminal sanctions. If one of HeiQ's products is found to be generally defective, HeiQ could be required to recall the product, and/or may be required to alter trademarks, labels or packaging, which could result in adverse publicity, significant expenses, potential disruptions in the supply chain and loss of revenue.	HeiQ operates with defined quality control procedures integrated in production to ensure that products sold are within specifications defined and agreed with customers. Having onboarded multiple suppliers for each raw material reduces the risk of supply chain issues but increases the risk of variation in ingredients, which may impact quality control.	Medium	Low	Stable to reduce due to new more bio-based innovations with lower overall risk profile.

Principal risks and uncertainties continued

Non-financial information statement

Our non-financial information statement is set out below in compliance with Sections 414CA and 414CB of the Companies Act 2006. It is intended to guide our stakeholders to where relevant non-financial information can be found in this Annual Report.

Reporting requirement	Policies and standards which govern our approach	Additional information and risk management
Environmental matters	ESG Policy Code of Business Ethics Policy Health, Safety, Environmental and Quality Policy GRI reporting standards (voluntary disclosures)	Stakeholder engagement (pages 26 to 29) Sustainability Report (pages 16 to 24) Task Force on Climate-related Financial Disclosures (pages 22 and 23)
Employees	Code of Business Ethics Policy ESG Policy GDPR Policy Whistleblowing Policy Corporate Major Accident Prevention Policy Grievance Disciplinary Policy Health, Safety, Environmental and Quality Policy	Stakeholder engagement (pages 26 to 29) Sustainability Report (pages 16 to 24) EHOS Committee report (page 53) Nomination Committee report (page 54) Remuneration Committee Report (pages 55 to 57) Report on Directors' remuneration (pages 58 to 61)
Social matters	Code of Business Ethics Policy ESG Policy GDPR Policy Health, Safety, Environmental and Quality Policy Lobbying Policy	Stakeholder engagement (pages 26 to 29) Sustainability Report (pages 16 to 24) Directors' report (pages 62 to 65)
Respect for human rights	Code of Business Ethics Policy	Stakeholder engagement (pages 26 to 29) Sustainability Report (pages 16 to 24)
Anti-corruption and bribery	Code of Business Ethics Policy Share Dealing Policy Whistleblowing Policy Anti-Bribery and Corruption Policy	Corporate Governance Statement (pages 46 to 48) Directors' report (pages 62 to 65)
Description of the business model		Market Overview (pages 6 and 7) Business model (pages 8 and 9)
Description of principal risks and impact of business activity		Business model (pages 8 and 9) Principal risks and uncertainties (pages 38 to 42) Task Force on Climate-related Financial Disclosures (pages 22 and 23)
Non-financial key performance indicators		Strategic Report (pages 1 to 43) Key performance indicators (page 14)

The Strategic Report was approved by the Board of Directors and signed on its behalf by:

Carlo Centonze
Director
October 26, 2023

The Board

Esther Dale-Kolb
Chair
Non-executive Director

Committees

Esther was Chief Executive Officer of Dr. W. Kolb Holding AG (Kolb), a Swiss specialty chemicals company. From 1991 until 2007 Esther was CEO of the Kolb Group, with over 200 employees, producing in Holland and Switzerland as an internationally operating specialty chemicals company. Esther managed the change from a pioneer-driven family company to a process-orientated modern business with a cooperative management style, contributing to substantial growth in production capacity, revenue and EBIT. She then successfully concluded the trade sale of the Kolb Group to Kuala Lumpur Kepong Berhad, KLK Malaysia and remained on the board for a further 18 months. Before leading Kolb, Esther worked as a product manager in paper chemicals and started her career as a laboratory technician at Dow Chemical. She completed her apprenticeship at the Swiss Federal Institute of Technology, ETH Zurich, and received her Bachelor of Science degree at King's College London. Esther was active as a member of the board of the Swisscross Foundation, a Swiss charitable foundation. Esther is the Chair of HeiQ.

Carlo Centonze
Co-founder and CEO
Executive Director

Committees

Carlo studied Environmental Sciences and Forest Engineering (MSc) at the Swiss Federal Institute of Technology, ETH Zurich. He earned his Executive MBA at the University of St. Gallen (HSG). After his service as an army pilot, he started his professional career as co-founder of the ETH spin-off, myclimate, a non-profit organization and prominent provider of carbon offsetting measures. Since 2004, Carlo has served HeiQ as co-founder and CEO, developing the firm from a two-employee company to an over 200-employee company. He also serves as chairman of ECSA Group, a 108-year-old Swiss chemical and energy distributor with an annual consolidated turnover of over US$300 million and is a member of the executive board of Science Industries, the Swiss association of the pharmaceutical, biotech and chemical industries.

Xaver Hangartner
CFO
Executive Director

Committees

Xaver started his career in finance in 2005 after obtaining a bachelor's degree in Business Administration from the University of St. Gallen (HSG). At the beginning of his professional career, he worked with EY Switzerland as an auditor for industrial clients and graduated as a Swiss Certified Public Accountant in 2009. He later worked in various finance positions and led the global finance and accounting team of a listed Korean specialty chemical producer before joining HeiQ in 2018 as Head of Controlling. He was appointed Group Chief Financial Officer in October 2019.

Benjamin Bergo
Non-executive Director

Committees

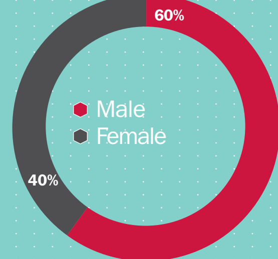
Ben brings a wealth of experience in high growth technology operations and venture capital. He currently serves as President and CEO of Visus Therapeutics, Inc., an ophthalmic drug development company with offices in Seattle, WA, and Irvine, CA. He has previously served on the board of several high growth companies, including as a non-executive director at Lumos Diagnostics Holdings Ltd (ASX:LDX), a leading full-service provider of point-of-care diagnostic solutions; as a non-executive director of Planet Innovation Holdings Limited, a HealthTech innovation and commercialization company, and he led investments into life sciences transactions at a seed stage venture fund between 2007 and 2011. Prior to this, Ben held management roles at Vision BioSystems, until the sale of Vision Systems Limited to Danaher Corporation in 2006.

Karen Brade
Non-executive Director

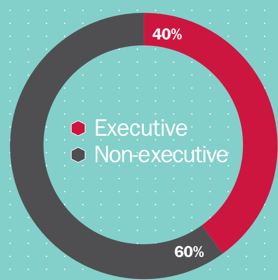
Committees

Karen has extensive experience of project finance, private equity and asset management. She started her career at Citibank working on multinational project finance transactions. Karen worked at British International investment, the UK Government's development finance institution, where she held positions in equity and debt investing, portfolio management, fund raising and investor development. Karen has been an advisor to hedge funds, family offices and private equity houses. She currently serves as chair of Aberdeen Japan Investment Trust plc; chair of Keystone Positive Change Investment Trust plc; non-executive director and chair of audit at Augmentum Fintech plc and is an external panel member of the Albion Capital VCT investment committee.

Overall gender split



Board structure



Key: Committee membership

- Audit Committee
- Nomination Committee
- Remuneration Committee
- Environmental, Occupation, Health and Safety Committee

Corporate governance statement

Esther Dale-Kolb
Chair

Chair's Introduction

The Board is committed to the principles underpinning good corporate governance. We aim to apply these in a manner which is most suited to the Company, and best addresses the Board's accountability to shareholders and other stakeholders. The Company, therefore, voluntarily observes the requirements of the QCA Corporate Governance Code (the "Code") as the Board feels that this Code is more appropriate for the Group's size and stage of development than the more prescriptive UK Corporate Governance Code.

During the period under review, the Company has complied with the QCA Corporate Governance Code except for, inter alia, the expectation that each member of the Remuneration Committee be independent, and each independent non-executive Director be re-elected on an annual basis. The Company will keep these matters and its governance framework under review as it continues to grow and develop.

In this report, we have set out how we have applied the ten principles of the Code in the year ended December 31, 2022.

Esther Dale-Kolb
Chair

Delivering growth

Strategy and business model

Principle one of the Code requires that companies establish a strategy and business model which promotes long-term value for shareholders. Our strategy, and the key challenges we face in executing the strategy, are set out in the Strategic Report on pages 6 to 13. HeiQ's leadership team meets regularly and focuses on the delivery of the Group's strategic plan which is set by the Board. The Chief Executive Officer reports to the Board on progress, and the Board supports and challenges the leadership team. Employees are kept informed of strategy and progress through regular employee briefings and newsletters.

Shareholder relations

Under principle two of the Code, we are required to seek to understand and meet the needs and expectations of our shareholders. In order to achieve this, we plan to make our Executive Directors available to shareholders through regular meetings throughout the year along with investor roadshows around the time of our financial results announcements.

Stakeholder engagement

Principle three of the Code requires us to take into account wider stakeholder and social responsibilities and their implications for long-term success. We consider our key stakeholders, in addition to our shareholders, to be our employees, our partners, our customers, our suppliers, our bankers and our lenders, the local communities in which we operate and the environment. More information on our engagement with our key stakeholders can be found in our s172 Statement on pages 26 to 29 of this report.

Risk management

Principle four of the Code requires the Company to embed effective risk management, considering both opportunities and threats, throughout the organization. The Group's significant risks and uncertainties are set out on pages 36 to 42 of this report together with a summary of how risk management is executed within the Group.

Disclosures on management of climate-related risk and opportunities (TCFD) are made on pages 22 to 23 of this report.

Maintaining a dynamic management framework

The Board

Principle five of the Code calls for the maintenance of the Board as a well-functioning, balanced team led by the Chair.

The Board is led by Esther Dale-Kolb, who is the non-executive Chair. The Board also includes two non-executive Directors who both have extensive experience with international and/or UK listed companies, and two Executive Directors. All Directors, including the Chair, hold shares in the Company. The two Executive Directors and the Chair are not considered independent, while the two non-executive Directors are considered independent.

There are four Board Committees: The Audit Committee, the Remuneration Committee, the Nomination Committee and the Environmental, Occupation, Health and Safety Committee (EOHSC) which the Board established during the course of 2022. More information on the Audit, Environmental, Occupation, Health and Safety Committee, Nomination and Remuneration Committees can be found on pages 49 to 55.

There have been nine Board meetings during the financial year to December 31, 2022 and all Directors attended every meeting.

Directors are expected to attend all Board meetings and the meetings of the Committees on which they sit. They are also required to devote sufficient time to the Company to enable them to fulfill their duties as Directors. The time commitment expected of the non-executive Directors is set out in their letters of appointment.

The Board's skills and capabilities

Principle six of the Code requires that the Company ensures that, between them, the Directors have the necessary up-to-date experience, skills and capabilities. The Board comprizes five individuals with a mix of skills and experience that is most appropriate for the Company at this stage in its development. More information on the background and skills of the individual Directors can be found on pages 44 to 45. The Board's gender balance is good, being two female and three male Directors.

The Board's training and development needs will be met by implementing appropriate training periodically during the course of 2023. The Company Secretary tables a report at each Board meeting which covers any significant developments in corporate governance.

Board performance and evaluation

The seventh Code principle requires the Board to evaluate its performance based on clear and relevant objectives, seeking continuous improvement. The Board conducted an internal evaluation during the second half of 2022. An anonymous questionnaire with 5 questions was given to and completed by all Board members. The questions entailed the following, how well has the Board done its job, how well has the Board conducted itself, it asked about the Boards relationship with Executive Directors, the performance of the individual Board Members and about Feedback to the chair of the Board.

On a scale from poor to satisfactory to good to very good and to excellent the result was between good and very good. To further improve, the boards main focus will be on close cooperation with management.

Succession planning will be addressed by the Nomination Committee which will make recommendations to the Board as required.

Corporate culture

Principle eight of the Code requires that the Company promotes a corporate culture that is based on ethical values and behaviors. We strive to ensure that our business success is in accordance with the best environmental, ethical and social standards. We aim to provide diligent product stewardship and deliver value to all our stakeholders. We have an entrepreneurial culture where disciplined execution is key. We expect all our employees to work hard and with determination and in return we care for our people. We pride ourselves on being customer-focused thinkers who act with integrity, honesty and trust. Sustainability is our guiding star in all our actions, processes and products.

The Board will monitor and promote a healthy corporate culture by conducting employee surveys with the aim of capturing strategic alignment, employee satisfaction, as well as suggested improvements.

Governance structure

Principle nine of the Code requires the Company to maintain governance structures and processes that are fit for purpose and support decision-making by the Board. The Board meets at least four times a year. The Audit, Environmental, Occupation, Health and Safety Committee (EOHSC) and Remuneration Committees meet at least twice, twice and once a year respectively. The Nomination Committee meets at least once a year and more frequently if circumstances so require.

As disclosed on page 22, in 2022, the Company is compliant 6 out of 11 TCFD recommended disclosures. With the formation of the EOHSC towards the end of 2022, the Company expects to significantly improve its governance structure regarding management of climate-related risks and opportunities as defined by the TCFD recommendations in course of 2023.

Corporate governance statement continued

The Board provides strategic leadership and sets the culture and practices that should be followed throughout the business. The Board maintains a schedule of matters reserved for its decision and these include:

Management structure and appointments:

- senior management responsibilities;
- Board and other senior management appointments or removals;
- Board and senior management succession, training, development and appraisal;
- appointment or removal of the Company Secretary;
- appointment or removal of the internal auditor;
- remuneration, contracts, grants of options and incentive arrangements for senior management;
- delegation of the Board's powers;
- agreeing to membership and terms of reference of Board Committees and task forces;
- establishment of managerial authority limits for smaller transactions; and
- matters referred to the Board by the Board Committees.

Strategic/policy considerations:

- business strategy;
- diversification/retrenchment policy;
- specific risk management policies, including insurance, hedging, borrowing limits and corporate security;
- agreement of codes of ethics and business practices;
- receipt and review of regular reports on internal controls;
- annual assessment of significant risks and effectiveness of internal controls;
- calling of shareholders' meetings; and
- avoidance of wrongful or fraudulent trading.

Transactions:

- acquisitions and disposals of subsidiaries or other assets over 10% of net assets/profits;
- investment and other capital projects over a similar level;
- substantial commitments including:
  - pension funding;
  - material contracts in excess of one year's duration; and
  - giving security over significant Group assets (including mortgages and charges over the Group's property);
- contracts not in the ordinary course of business;
- actions or transactions where there may be doubt over property;
- approval of certain announcements, prospectuses, circulars and similar documents;
- disclosure of Directors' interests; and
- transactions with Directors or other related parties.

Finance:

- raising new capital and confirmation of major financing facilities;
- treasury policies, including foreign currency and interest rate exposure;
- discussion of any proposed qualification to the accounts;
- final approval of annual and interim reports and accounts and accounting policies;
- appointment/proposal of auditors;
- material charitable donations;
- approval and recommendation of dividends; and
- approval before each year starts of operating budgets for the year and periodic review during the year.

Liaison with investors at:

- AGM
- Investor roadshow, typically three per annum
- Site visits for institutional investors
- Online retail presentations with Q&A

General:

- governance of Company pension schemes and appointment of Company nominees as trustee; and
- allotment, calls or forfeiture of shares.

The Board has approved terms of reference for each of the Board Committees to which certain responsibilities are delegated. The chair of each Committee reports to the Board on the activities of that Committee. Further information on the Committees can be found on pages 49 to 55 of this report.

The Chair is responsible for the leadership of the Board, ensuring its effectiveness on all aspects of its role and the setting of its agenda. She ensures the Directors receive accurate, timely and clear information and she is responsible for ensuring the Board's effective communication with shareholders. In leading Board meetings, the Chair facilitates the effective contribution of non-executive Directors and ensures constructive relations between Executive and non-executive Directors.

The Chief Executive Officer is responsible for the leadership and management of the Company, and the implementation of objectives and strategies agreed by the Board.

Build trust

Stakeholder communication

Principle ten of the Code requires the Company to communicate how the Company is governed and is performing by maintaining a dialogue with shareholders and other relevant stakeholders.

During the period under review we have had over 30 interactions with shareholders, have conducted several audits by regulatory counterparts and interacted with strong customer base. Further information on our engagement with shareholders can be found on page 27 of this report.

Esther Dale-Kolb
Chair
October 26, 2023

Audit committee report

Karen Brade
Chair

The following is the Audit Committee Report for the year ended December 31, 2022.

Deloitte LLP was newly appointed as our auditor for the year ended 31 December 2022. The choice reflected the need to address the increased complexity of the business following multiple acquisitions and organic growth in previous years. During the audit it became clear we had underestimated the time it would take to implement new processes and systems designed to integrate and streamline the various acquisitions that had been made since our listing in 2020. This led to an unforeseen and significant extension to the year end reporting timetable for 2022 with a related impact on the timing of the external audit work. The work revealed the need to increase the strength of our core finance function and to design a stronger internal control system both at the Group and individual entity levels. In response to identified control deficiencies, a significant increase in the amount of substantive audit work was required. Regrettably we were unable to publish our audited accounts by April 30, 2023, which led to the suspension of HeiQ's shares.

As the Group has entered a challenging trading period it has been important to review all aspects of the accounting which rely on significant judgment. Reviewing key judgments inherent in the Group's impairment review, including operating margins, long term growth rates and discount factors has resulted in significant impairments in the period. Judgements surrounding provisions required for inventory, revenue and receivables have also been reassessed to reflect management's updated views on recoverability. The Board also challenged key estimates and judgments in relation to previous reporting periods which has led to certain restatements as outlined in Note 2 to the financial statements. Recognizing the significance of the restatements and delays in the reporting process, the Board, the Audit Committee and Management have carefully considered the causes and the wider implications for governance and controls in general. Corrective measures will be discussed in detail with the auditors. Robust processes surrounding the risks associated with the material account balances and transactions are being defined and will be implemented to improve the 2023 year-end reporting process. We have and will further strengthen our resources and staffing to ensure continued compliance with regulatory requirements and to deepen our knowledge of the listing rules.

There are two members of the Audit Committee. I chair the Committee and the other member is Benjamin Bergo. Our biographies setting out our skills and qualifications can be found on page 45 of this report. We are both non-executive Directors. It is intended that the Audit Committee meets at least twice a year and the Committee is responsible for ensuring that the Group's financial performance is properly monitored, controlled and reported. I report to the Board after each Committee, and I will attend each Annual General Meeting of the Company.

In the period between January 1, 2022 and December 31, 2022, the Committee met twice, with both members in attendance. Once the pending delay in regard to the 2022 annual report became apparent there was a weekly call with the audit team at Deloitte to address all the challenges this first year audit presented and to ensure the Board was up to date.

Duties of the Audit Committee

Internal control and risk assessment

The Committee assists the Board in discharging its duty to ensure that the financial statements presented by the Company to its shareholders conform with all legal requirements and that the Company and its subsidiaries' financial reporting and internal control policies and procedures for the identification, assessment and reporting of risks are adequate, by keeping such matters under review and making appropriate recommendations to the Board. The Committee also considers the major findings of internal investigations and responses of service providers and reviews its own performance, constitution and terms of reference.

External audit

The Committee considers and makes recommendations to the Board regarding the appointment and reappointment of the Company's external auditor, as well as any questions relating to their resignation or removal. The Committee oversees the relationship with the external auditor, including, but not limited to, the approval of their remuneration and terms of engagement, whether in relation to audit or non-audit services, and annually assesses the auditor's independence, objectivity, qualifications, expertise, resources and effectiveness. The Audit Committee meets the external auditor at least twice a year and reviews the findings of the audit.

Audit committee report continued

Financial statements

The Committee monitors the integrity of the financial statements of the Group, including the annual and interim reports, preliminary results announcements and any other formal announcement relating to its financial performance. It reviews any significant financial reporting issues and judgments, and challenges, where necessary, the Group's financial statements before submission to the Board. The Committee keeps under review the consistency of accounting policies and practices on a year-to-year basis, and across the Group.

The Company needs to undertake a detailed assessment of the control procedures designed to ensure complete and accurate accounting for financial transactions and to limit the exposure to loss of assets and fraud. Measures taken will include segregation of duties and reviews by management.

Reporting responsibilities

The Committee meets formally with the Board at least once a year to discuss matters such as the annual report and the relationship with the external auditor and also makes whatever recommendations to the Board it deems appropriate.

Internal audit and review of third-party service providers

At present, the Company does not have an internal audit function. The decision of whether or not to set up an internal audit function will be made by the Board, on the recommendation of the Audit Committee, based on the growth of the Company, the scale, diversity and complexity of the Group's activities and the number of employees, as well as cost and benefit considerations.

Work of the Audit Committee

For the reporting period for the year ended December 31, 2022 the Audit Committee discharged its responsibilities by considering the following matters:

Issue	How this was addressed
Annual Report and Accounts	The Committee was required to provide advice to the Board on whether the Annual Report and Accounts, taken as a whole, provide a fair, balanced and understandable assessment of the Group's financial position and future prospects and provide all information necessary to a shareholder to assess the Group's performance, business model and strategy. The assessment was assisted by an internal verification of the factual content by management and a comprehensive review by the senior management team and the external auditors. Following its review, the Committee was of the opinion that the Annual Report and Accounts 2022 were representative of the year and present a fair, balanced and understandable overview, providing the necessary information for shareholders to assess the Group's position and performance, business model and strategy.
Financial Reporting 2022	The Committee reviewed whether suitable accounting policies had been adopted, and whether management had made the appropriate estimates and judgments. In addition, views were sought from the external auditor. To do so, the Committee received reports from the external auditor covering the key risk areas addressed during the year-end audit, and the auditors' view of key judgments made by management. Specific issues addressed by the Committee for the year ended December 31, 2022 included: • analyzing forward looking budgets and making recommendations regarding improved financial reporting to the Board. • advice and discussion on revenue recognition principles and methodology while challenging the accounting treatment for the Group's take or pay contracts. • advising on the review of long dated receivables to ensure related judgments are reasonable and supportable and aged receivables are challenged appropriately. This is linked to the take or pay contracts discussed above. • advising on accounting for acquisitions and the impairment of goodwill and intangibles. • advising on the provision for inventory given the disrupted market conditions. • working with the auditor to identify the deficiencies in the control environment and agree measures that need to be taken. • the underperformance against the Group's plan in 2022 and 2023 required a revision of the going concern model and the need to understand the short-term nature of the credit facilities in place against the projected cashflow requirements. • review and discussion of the key audit matters raised by the auditors. The view of the Audit Committee on the key audit matters raised by the auditors in their audit opinion is discussed below. Based upon the business assurance process and discussions with management and the external auditor, the Committee was satisfied that the accounting disclosures and assumptions were reasonable and appropriate for a business of the Group's size and complexity, that the external auditor had fulfilled its responsibilities in scrutinizing the financial statements for any material misstatements and that the disclosures were satisfactory.

Issue	How this was addressed
Other topics	Other topics addressed by the Committee within the financial year 2022 included: • ensuring the previous auditor adopted the recommendations which came out of the regulatory review of the audit of our 2020 financial statements in 2021 for the audit of the 31 December 2021 financial statements. • Replacement of the Group auditor for the reporting period 2022. • the introduction of a new, company-wide ERP system was discussed and considered at length.

Key audit matters related to the financial accounts 2022

Key audit matters are those matters that, in the judgment of the auditor, are most significant to their audit and which include the most significant assessed risks of material misstatements that they as auditor identified. Key audit matters are defined and discussed by the auditor in their opinion on page 66 to 79 of this annual report "5. Key audit matters".

Audit matter	Observation by the auditor	Company view on audit matter
Going concern	The auditors are drawing attention to the disclosure made within the financial statements that a material uncertainty exists in the going concern assessment but concluded that the use of the Going Concern basis of accounting is appropriate.	As disclosed in the financial statement, the uncommitted nature of key credit facilities casts a doubt on the Group's ability to continue as a going concern in a scenario where financing partners might terminate credit facilities in place within the next twelve months requiring refinancing. The Board recognizes the short-term nature of the Groups' external borrowing and the ability for facilities to be withdrawn with no notice. However, based on their active reviews, they remain confident that the facilities are likely to remain available for the foreseeable future.
Deficiencies in the internal control environment	In the auditor's assessment, internal controls have not yet reached the maturity level expected for a listed Group and they see many significant improvements that need to be made.	The Audit Committee acknowledges the assessment by the auditors and the implementation of robust controls and processes is a priority for the organization as a whole. The work to improve the robustness of processes including controls has commenced and includes the implementation of harmonized systems across the Group. Significant resources have been added and will be added as deemed necessary in the finance team building up a centralized accounting function. The committee also asked the auditor for detailed feedback on specific weaknesses identified which the auditors agreed to provide shortly after the audit is closed. Once received, this feedback will be considered in the review of the internal control system which is currently ongoing.
Revenue recognition of long-term exclusivity contracts with customers	The auditors challenged the accounting treatment for certain long-term contracts and concluded in a number of circumstances that revenue recognition criteria were not met. One specific contract was not effectively enforced by the Group, evidenced by significantly aged open trade receivables and others were not initially accounted for correctly in accordance with the requirements of IFRS15. Significant audit adjustments were recorded as a result of their work to correct the accounting.	For the specific contract not effectively enforced, given the development of the situation in course of 2022 and the renegotiation of the contract in 2023 including a waiver of the open receivables, the Company agreed with the auditors that revenue recognition criteria have not been met. A significant payment in relation to the receivables in question was collected at the end of 2019. In 2020 and 2021, the Group received accounts receivables confirmations from the customer and all due receivables from delivery of goods were collected by the end of 2022. Nevertheless, the Group did not take legal action against the customer despite the significant, aged accounts receivables. The receivables were waived in 2023 in the course of a contract re-negotiation, so the Company shares the auditor's view that the contract was not effectively enforced. For the contracts not accounted for in compliance with IFRS15 the revenue recognized at a point in time was reversed and, depending on the nature of the contract, will now be spread over the period of time of the exclusivity contract or minimum quantity requirements in accordance with the requirements of the accounting standard.

Audit committee report continued

Audit matter	Observation by the auditor	Company view on audit matter
Impairment of intangible assets and goodwill	The auditor observed that financial forecasts underlying the work of impairment test (Annual Budgets and 3-Year Planning documents) had not been adjusted for historic underperformance against forecasts and therefore the auditors challenged the assumptions used in the models prepared for the impairment tests.	The Audit Committee acknowledges that the Group has recently underperformed against management forecasts. As such, it deemed it more appropriate to base impairment tests on year-to-date backlog/overperformance to annual planning respectively on historic compound annual growth rates for longer-term forecasts. Accordingly, the Group also challenged its impairment testing done in the previous reporting periods taking into account up-to-date performance information which was available at the time of approval of the prior year financial report. This exercise has shown that in applying the same principles, a part of the overall impairment should have been identified and recorded in the previous period. During the process described above some errors were noted in the original impairments models and were also corrected.
Recoverability of accounts receivable from contracts with customers	The auditor challenged managements assertion that a number of long dated trade receivables were recoverable, which resulted in a material adjustment and the derecognition of certain receivables.	The fact that certain revenues have not met recognition criteria in previous periods as explained above (key audit matter: revenue recognition from customer contracts), has caused a related restatement of accounts receivables. Further, in course of the closing process, the Group has updated its view on the expected credit loss relating to an open receivable for which the Group has filed a claim in court.
Provision for obsolete and excess inventory	The auditors note that management's procedures to determine obsolete inventory did not appropriately consider future sales forecasts.	In view of the rapidly changed market conditions, the Audit Committee and management have concluded that it is appropriate to shorten the demand forecast period underlying the inventory valuation model from up to 3 years down to 12 months. This is considered appropriate given the reduced demand the Group faces in general and due to the limited visibility for market recovery.

Whistleblowing
The Group has a whistleblowing policy in place which sets out the formal process by which an employee of the Group may, in confidence, raise concerns about possible improprieties in financial reporting or other matters.

Anti-bribery
The Group has an anti-bribery and anti-corruption policy which sets out its zero-tolerance position and provides information and guidance to employees on how to recognize and deal with bribery and corruption issues.

Assessment of the effectiveness of the Committee
The Board conducted a formal assessment of its performance and that of its Committees during Q4 2022.

External auditor
The Committee considered the independence and effectiveness of the external auditor. The Annual Report 2022 is the first year Deloitte LLP has been auditing HeiQ and William Eversden has been the audit partner for this period. When assessing the independence of the external auditor the Committee considered the fees paid to Deloitte LLP for non-audit services. The auditor has not provided any non-audit services to the Company during the period January 1, 2022 to December 31, 2022.

Deloitte LLP has informed us that following the issuance of these financial statements they will resign as auditors of the Group and certain subsidiaries, and therefore will not seek re-election at the forthcoming Annual General Meeting of the Company. The Audit Committee would have preferred that Deloitte worked with a new auditor to ensure the 2023 audit is delivered on time. HeiQ has incurred significant expense, while Deloitte has invested considerable time into the 2022 audit. The identification of a new auditor has been initiated and the new auditor will be announced as soon as is practicable.

Karen Brade
Chair
October 26, 2023

Environmental, occupation, health and safety ("EOHS") committee report

Carlo Centonze
Chair

On behalf of the Committee, I am pleased to present the EOHS Committee Report for the year ended December 31, 2022.

There are three members of the EOHS Committee. I chair the Committee and the other members are Esther Dale-Kolb and Karen Brade. Our biographies setting out our skills and qualifications can be found on pages 44 to 45 of this report. Esther Dale-Kolb and Karen Brade non-executive Directors. It is intended that the EOHS Committee meets at least twice a year, and the Committee is responsible for ensuring that the EOHS policy and practices are a core consideration across all functions of the Group. I report to the Board after each Committee, and I will attend each Annual General Meeting of the Group.

In the period between January 1, 2022 and December 31, 2022, the Committee has met twice, with all members in attendance.

The EOHS Committee plays a vital role at HeiQ by ensuring that the Group has effective and appropriate EOHS policy and practices in place. I will ensure that the EOHS Committee provides the appropriate guidance, governance and oversight to the Board and management teams to ensure environmental, social and governance considerations continue to be an integral component of HeiQ's global operations.

Duties of the EOHS Committee

Regular reviews

Review the Group's operations to ensure that the environment and making a positive contribution to society, is incorporated in all aspects of the Group's development and the Group's stated responsibilities with respect to environmental, social and EOHS policy. Conduct an assessment of the Group's internal controls used to demonstrate and record conformity with the Group's stated EOHS goals. The Committee shall review its own performance, constitution, and terms of reference and make recommendations to the Board about any matters arising. Furthermore, the Committee shall keep abreast of external trends or regulatory changes that may be relevant to the Group and its operations and understand shareholders' views and expectations with regards to EOHS matters and take account thereof.

Recommendations to the Board

The Committee shall make recommendations to the Board with regards to changes to the Group's existing environmental, occupational, health & safety, and policies and practices that it sees fit to ensure that the Group's commitment to these is maintained and demonstrated. As the Group progresses through the financial year ending December 31, 2023 the Committee shall continue to assist the Board with the development of internal KPIs to allow the Group to assess its activities with respect to its stated goals and the method of monitoring and reporting on those KPIs.

Carlo Centonze
Chair
October 26, 2023

Nomination committee report

Esther Dale-Kolb
Chair

On behalf of the Committee, I am pleased to present the Nomination Committee Report for the year ended December 31, 2022.

There are three members of the Nomination Committee. I chair the Committee and the other members are Karen Brade and Benjamin Bergo. We are all non-executive Directors. The Committee meets at least annually, close to the end of each financial year, and at such other times as the Nomination Committee requires.

In the period between January 1, 2022, and December 31, 2022, the Committee has met once with all members in attendance.

Duties of the Nomination Committee

Regular reviews

The Committee reviews regularly, and at least annually, the time required from a non-executive Director and whether each non-executive Director is spending enough time to fulfill his or her duties. The Committee reviews the structure, size, composition, skills, knowledge and experience of the Board and the leadership needs of the Group to ensure that the Group continues to compete effectively in its marketplace. The Committee undertakes to consider its own performance, constitution and terms of reference and makes recommendations to the Board about any matters arising.

Board appointments

The Committee is responsible for identifying and nominating, for the approval of the Board, candidates taken from a wide range of backgrounds to fill Board vacancies as and when they arise for any reason, including retirement by rotation. It evaluates, before making an appointment, the balance of skills, knowledge and experience on the Board and, in the light of this evaluation, prepares a description of the role and capabilities required for appointments. The Committee is required to give full consideration to succession planning in the course of its work, considering the challenges and opportunities facing the Group and the skills and expertise that will be needed on the Board in the future. The Committee ensures that, on appointment to the Board, non-executive Directors receive a contract setting out clearly what is expected of them in terms of time commitment, Committee service and involvement outside of Board meetings.

Recommendations to the Board

The Committee undertakes to make recommendations to the Board about plans for an orderly succession of the Chairman and non-executive Directors and a formal, rigorous and transparent procedure to be used by them. The Committee also considers and recommends, if appropriate, the reappointment of any non-executive Director at the conclusion of their specified term of office or under the retirement by rotation provisions in the Company's Articles of Association. The Committee considers and makes recommendations on the membership of the Audit Committee, the Environmental, Occupation, Health and Safety Committee, the Nomination Committee, and the Remuneration Committee in consultation with the Chairmen/Chairwomen of those Committees. The Committee may also, at any time, recommend to the Board the appointment of additional non-executive Directors and any Executive Directors (if such are considered to be appropriate).

Assessment of the effectiveness of the Committee

The Board conducted a formal assessment of its performance and that of its Committees during Q4 2022.

Esther M. Dale-Kolb
Chair
October 26, 2023

Remuneration committee report

Benjamin Bergo
Chair

On behalf of the Committee, I am pleased to present the Remuneration Committee Report for the year ended December 31, 2022. The Committee comprizes two non-executive Directors, Benjamin Bergo (Chair) and Esther Dale-Kolb, and one Executive Director, Carlo Centonze.

In the period January 1, 2022 to December 31, 2022, two meetings of the Remuneration Committee were held. The Remuneration Committee will meet at least annually, and the Committee Chair shall attend each Annual General Meeting of the Company. No one shall be present during the discussion of, or vote on, matters regarding her/his own position. The Chair of the Board shall not chair the Committee meeting when it is dealing with the appointment of her successor. The committee may seek assistance from remuneration consultants if deemed necessary. However, in 2022, no material assistance from remuneration consultants has been provided.

Duties of the Remuneration Committee

The Committee's responsibilities include the following:

Regular reviews

The Committee reviews regularly, and at least annually, the time required from a non-executive Director and whether each non-executive Director is spending enough time fulfilling his or her duties. The Committee reviews comparable Company data to ensure that the Board is being adequately remunerated and to a level which will allow the Company to attract new Directors, the Remuneration Committee's own performance, constitution and terms of reference and remuneration to ensure it is aligned to the implementation of the Company strategy and effective risk management, taking into account the views of shareholders and consultants as required.

Recommendations to the Board

The Committee undertakes to make recommendations about matters arising from the Remuneration Committee's regular reviews and the annual review of fees paid to the Board and any changes to the current levels of remuneration.

Option Scheme awards

The Committee is responsible for making all decisions relating to awards to be made to Executive Directors under the Option Scheme.

Other matters

The Committee shall make a statement in the Annual Report, to keep up to date and fully informed about strategic issues and commercial changes affecting the Company and the market in which it operates and to ensure an annual review of the Board and its operations is undertaken.

Chair's statement

The Directors are pleased to present their annual report on remuneration for 2022. The aim of the Remuneration Committee is to set clear objectives for each individual Executive Director and executive management team member relating to the Company's KPIs plus individual and strategic targets taking into account where an individual has particular influence and responsibility.

All five Directors of the Company, both Executive and non-executive, are shareholders of the Group. During the year, the Executive Directors were granted share options as detailed in the Annual Report on Directors Remuneration.

As no substantial changes were made to the remuneration of Executive and Non-Executive Directors, the major decision on directors' remuneration was related to the annual cash bonus whereas it was decided not to pay any bonus amount in 2022 as performance measures have not been met. No discretion has been exercised in the award of directors' remuneration. The second major decision was the grant of in total 448.000 share options for Executive Directors in September 2022 as detailed on page 59.

Directors' remuneration policy

The Company's policy is to maintain levels of remuneration sufficient to attract, motivate and retain senior executives of the highest calibre who can deliver growth in shareholder value. Executive Directors' remuneration currently consists of basic salary, benefits (including pensions allowance), performance-related bonus and participation in a share option plan.

The Company continues to seek to strike an appropriate balance between fixed and performance-related rewards, reinforcing a clear link between pay and performance. The performance targets for staff, senior executives and the Executive Directors continue to be aligned to the key drivers of the business strategy, thereby creating a strong alignment of interest between staff, Executive Directors and shareholders. The Remuneration Committee will continue to review the Company's remuneration policy and make amendments, as and when necessary, to ensure it remains fit for purpose and continues to drive high levels of executive performance and remains both affordable and competitive in the market.

The policy as detailed below was approved by shareholders on June 25, 2021 by Annual General Meeting and requires renewal by the Annual General Meeting in the year 2024.

Benjamin Bergo
Chair
October 26, 2023

Remuneration committee report continued

Policy table

Base salary		
Purpose and link to strategy	To provide fixed remuneration to: • help recruit and retain key individuals; and • reflect the individual's experience, role, rank and contribution within the Company.	
Operation	The Remuneration Committee takes into account a number of factors when setting salaries, including: • the scope and complexity of the role; • the skills and experience of the individual; • salary levels for similar roles within the industry; • pay elsewhere in the Company.	Salaries are reviewed, but not necessarily increased, annually with any increase usually taking effect in Q1.
Performance conditions	None	
Maximum opportunity	The current base salaries of the Directors can be found in the Directors' Remuneration section.	The Board retains discretion to make higher increases in certain circumstances, for example, following an increase in the scope and/or responsibility of the role or the development of the individual in the role or by benchmarking.

Other benefits	
Purpose and link to strategy	To provide a basic benefits package, in order to help recruit and retain key individuals.
Operation	The Group may provide Directors and management as well as employees with accident insurance, pension insurance and similar benefits in line with legal requirements in the jurisdiction of employment of the respective employee.
Performance conditions	None
Maximum opportunity	Maximum opportunity will be the expense of providing the benefit.

Policy table continued

Annual bonus		
Purpose and link to strategy	To incentivize and reward the achievement of annual financial, operational and individual objectives which are key to the delivery of the Company's short-term strategy.	
Operation	Executive Directors and staff are eligible to participate in a discretionary bonus plan. • Maximum bonus levels and the proportion payable for on-target performance are considered in the light of market bonus levels for similar roles among the industry sector. • From 2021 objectives will be set annually to ensure that they remain targeted and focused on the delivery of the Company's short-term goals, which will usually be based on the annual budget. • The Remuneration Committee sets targets which require appropriate levels of performance, taking into account internal and external expectations of performance.	As soon as practicable after the year end, the Remuneration Committee meets to review performance against objectives and determines payout levels.
Performance conditions	At least 60% of the award will be assessed against Company metrics including operational, financial and non-financial performance. The remainder of the award will be based on performance against individual objectives.	A sliding scale of between 0% and 100% of the maximum award is paid dependent on the level of performance.
Maximum opportunity	The maximum potential bonus entitlement for Executive Directors under the plan is up to 100% of base salary.	

Share Option Plan		
Purpose and link to strategy	• To incentivize and reward the creation of long-term shareholder value. • To align the interests of the eligible employees with those of shareholders. • To help recruit and retain key individuals.	
Operation	Under the terms of the share option plan (the "Share Option Plan"), the Remuneration Committee may issue options over shares up to 10% of the issued share capital of the Company from time to time. Executive Directors and employees are eligible for awards.	The exercise of options may be subject to the satisfaction of such performance conditions, if any, as may be specified and subsequently varied and/or waived by the Remuneration Committee.
Performance conditions	Vesting of the awards is dependent on financial, operational and/or share price measures, as set by the Remuneration Committee, which are aligned with the long-term strategic objectives of the Company.	The relevant performance conditions will be set by the Remuneration Committee on the award of each grant.

Annual report on Directors' remuneration (audited)

All current Directors took office upon Re-admission of the enlarged Group for trading on December 7, 2020 and have been re-elected at the Company's annual shareholder meeting held on June 25, 2021. The Executive Directors are employed under a service agreement, which is capable of termination by either party giving 12 months' notice in writing. The non-executive Directors are employed under service agreements with notice periods of three months. The non-executive Directors are required to retire and seek re-election by the shareholders as required by the Articles or as the Board resolves. The Articles require all Directors to retire and seek re-election at the third AGM or general meeting (as the case may be) at which he or she was previously appointed.

The Executive Directors have – in addition to the Director's service agreement – entered into employment contracts with HeiQ Materials AG. The disclosed emoluments include the total compensation under both agreements.

Single figure of total Directors' remuneration 2022

		Salary/Fee		Pension benefits		Cash bonus payments	
	Currency of payment	**2022**	2021	**2022**	2021	**2022**	2021
Carlo Centonze	CHF	**260,999**	273,499	**22,340**	21,177	**–**	40,600
	GBP	**35,000**	35,000	**–**	–	**–**	–
	Total in CHF*	**302,281**	371,511	**22,340**	21,177	**–**	40,600
Xaver Hangartner	CHF	**183,499**	183,499	**10,788**	9,055	**–**	41,048
	GBP	**35,000**	35,000	**–**	–	**–**	–
	Total in CHF*	**224,782**	227,512	**10,788**	9,055	**–**	41,048
Esther Dale-Kolb	GBP	**70,000**	70,000	**–**	–	**–**	–
Karen Brade	GBP	**40,000**	40,000	**–**	–	**–**	–
Benjamin Bergo	GBP	**40,000**	40,000	**–**	–	**–**	–
Total	CHF	**444,498**	456,998	**33,128**	30,232	**–**	81,648
	GBP	**220,000**	220,000	**–**	–	**–**	–

		Total		Thereof fix renumeration		Thereof variable renumeration	
	Currency of payment	**2022**	2021	**2022**	2021	**2022**	2021
Carlo Centonze	CHF	**283,339**	335,276	**283,339**	294,676	**–**	40,600
	GBP	**35,000**	35,000	**35,000**	35,000	**–**	–
	Total in CHF*	**324,621**	379,288	**324,621**	338,688	**–**	40,600
Xaver Hangartner	CHF	**194,287**	233,602	**194,287**	192,554	**–**	41,048
	GBP	**35,000**	35,000	**35,000**	35,000	**–**	–
	Total in CHF*	**235,570**	277,615	**235,570**	236,567	**–**	41,048
Esther Dale-Kolb	GBP	**70,000**	70,000	**70,000**	70,000	**–**	–
Karen Brade	GBP	**40,000**	40,000	**40,000**	40,000	**–**	–
Benjamin Bergo	GBP	**40,000**	40,000	**40,000**	40,000	**–**	–
Total	CHF	**477,626**	568,878	**477,626**	487,230	**–**	81,648
	GBP	**220,000**	220,000	**220,000**	220,000	**–**	–

* To convert GBP into CHF, an average rate of 1.1795 was used for 2022 and of 1.2575 for 2021.

The only share-based compensation scheme is the option plan as set out in the policy table and as per further details on option grants below. In 2022 no options vested (2021: Nil).

Annual Cash Bonus 2022

The Executive Directors did participate in the annual cash bonus plan in 2022 which is depending on the performance during the year 2021. However, as performance conditions have not been achieved, no cash bonus was paid in 2022.

The relevant performance conditions were defined as follows, whereas the average achievement of all conditions has to be at least at 80%. In case of 100% average achievement, the cash bonus would equal 12.5% of the annual fixed salary and the maximum opportunity is capped at 25% of the annual fixed salary.

Performance condition	Target	Achievement (before restatements of FY 2021)	Achievement in %
Sales 2021	US$55 million	US$57.9 million	105%
Operating Profit 2021	US$11.1 million	US$3.1 million	28%
Net Profit 2021	US$8.5 million	US$2.5 million	29%
Average achievement			**54%**

As the average achievement is lower than 80%, no cash bonus payment was earned in 2022.

Share options issued to Directors under the Company's share option plan

Share options issued under the Company's share option plan in 2022 are subject to the following conditions:

Exercise price	£0.702 per option share (5-days average of closing price before the grant date)
Grant date	September 26, 2022
Employment period	Three years
Performance conditions	• 65% of the options are conditional upon sales growth targets Performance is measure over the years 2022–2024 and performance target is 7.5% for each individual year or 24.2% compound sales growth over the three years 2022-2024 • 35% of the options are conditional upon annual operating margin targets Performance is measured each year 2022-2024 and the performance target is 25%
Changes of conditions compared to prior year/ since grant date	None

Share options awarded to Executive Directors in the year are as follows:

	2022	2021
Carlo Centonze	**224,000**	–
Xaver Hangartner	**224,000**	–

Only in case all of the performance conditions are met, 100% of the share options will vest at the end of the employment period. The face value of the award for each Executive Director as of grant date is GBP 157,248 (224,000 shares at GBP 0.702 each) for which an exercise price in the same amount will become due upon exercise of the option rights.

No share options have been awarded to non-executive Directors in 2022. In 2021 no share options have been issued to any Director.

Directors' interest

The Directors' interests for disclosure purposes are as follows:

	Number of interests in shares as of December 31, 2021	Shares purchased/ sold on market in 2022	Number of interest in shares as of December 31, 2022	Number of interests in share options[2] as of December 31, 2021	Share options[2] granted in 2022	Number of interest in share options[2] as of December 31, 2022	% shares and options held of total shares in issue as at December 31, 2022
Carlo Centonze[1]	14,523,362	33,000	14,556,362	1,120,000	224,000	1,344,000	10.46%
Xaver Hangartner	493,746	–	493,746	1,120,000	224,000	1,344,000	1.21%
Esther Dale-Kolb	902,986	–	902,986	–	–	–	0.60%
Karen Brade	7,976	–	7,976	–	–	–	0.01%
Benjamin Bergo	284,853	–	284,853	–	–	–	0.19%

1. Including shares owned by close relatives and controlled entities.

2. All share options are subject to performance measures. None of the share options have vested.

Annual report on Directors' remuneration (audited) continued

The Company has a policy on dealing with HeiQ plc shares which also applies to Executive Directors. Executive Directors are required to option clearance for any share dealing in advance and must notify the Company and FCA on any share dealing. Further, they are restricted from dealing during defined closed periods or during any period when there exists any matter which constitutes inside information. Persons closely associated with Executive Directors and their investment managers are also subject to the policy. In 2022, the requirements of the policy have been met by the Executive Directors. The Company does not have a shareholding guideline for Executive Directors in place.

Payments for loss of office/Payments to past directors

No payments were made to Directors for loss of office or to any past Directors in the year 2022 (2021: None).

Table of CEO remuneration

Year	CEO	CEO single figure of total remuneration CHF'000[1]	Annual bonus payout against maximum opportunity %	Option vesting rates against maximum opportunity %
2022	**Carlo Centonze**	**324**	**0%**	**n/a[2]**
2021	Carlo Centonze	379	59%	n/a[2]

1. To convert GBP into CHF, an average rate of 1.1795 was used for 2022 and of 1.2575 for 2021.
2. No incentives have been vesting during that period.
3. HeiQ plc listed on December 7, 2020. Therefore, no disclosure has been done for the year 2020 as not representative.

Percentage change in remuneration of the Directors and Average Employee

The table below shows the movement in salary, taxable benefits and annual incentives for each of the Directors between the current and prior years at fixed exchange rates compared to the remuneration of the Average Employee[1]:

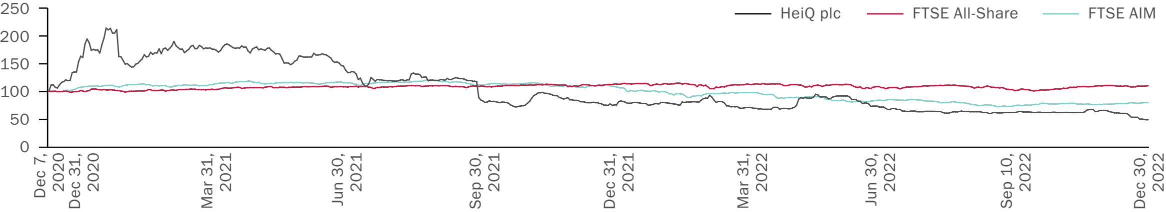
		Executive Directors		Non-executive Directors[2]		
	Average Employee[1]	Carlo Centonze	Xaver Hangartner	Esther Dale	Karen Brade	Benjamin Bergo
Base salary						
2021–2022	–1.5%	–4%	0%	0%	0%	0%
2020–2021[5]	18%	n/a	n/a	n/a	n/a	n/a
Taxable benefits[3]						
2021–2022	45%	–	–	–	–	–
2020–2021[5]	23%	n/a	n/a	n/a	n/a	n/a
Annual Incentive[4]						
2021–2022	14%	–100%	–100%	–	–	–
2020–2021[5]	–17%	n/a	n/a	n/a	n/a	n/a

1. Average Group employee data is based on the employee remuneration costs and average number of employees of HeiQ plc and HeiQ Materials AG from which also the Directors received their compensation, with costs for the executive and non-executive Directors removed.
2. Non-executive Directors do not receive taxable benefits or annual incentives.
3. Taxable benefits include car and other transportation allowances and housing allowances. Directors do not receive taxable benefits.
4. Total annual Incentive includes cash bonus payments and commissions.
5. All Directors have assumed their role in December 2020. For years where the Director did not serve the full year the calculation has not been made as it is not representative.

Total Shareholder Return performance

The graph below shows the TSR performance since December 7, 2020, the day when HeiQ plc relisted after the reverse takeover of HeiQ Materials AG, against the FTSE (All) Index and the AIM Index. These indices have been selected as the most relevant comparators for the Company across the time period reflected in the graph below due to HeiQ's main market listing and considering the Company's market capitalization and size.

HeiQ plc TSR Chart since listing



The middle market price of an ordinary share at the close of business on 4 January 2022 and 30 December 2022 (being the first and last days the London Stock Exchange was open for trading in 2022) was 93.5 pence and 55 pence respectively, and during that period ranged between a high of 106 pence and a low of 55 pence.

Relative importance of the spend on pay

The following table shows the total expenditure on pay for all of the Group's employees compared to distributions to shareholders by way of dividend. In order to provide context for these figures, operating profit/(loss) is also shown.

	2022 US$'000	2021 US$'000	Change in %
Employee renumeration costs (Note 12 of financial statements)	**17,807**	15,238	17%
Distributions to shareholders	**0**	0	0%
Operating loss	**(22,307)**	(665)	3254%

Statement of implementation of Remuneration Policy in 2023 (unaudited)

Information on how the Company intends to implement the Executive Directors' Remuneration Policy in 2023 is set out below. No significant changes in the way that the remuneration policy will be implemented in 2023 are foreseen.

Base salary

	Currency	**2023**	2022	Change in %
Carlo Centonze	CHF	**260,999**	260,999	0%
	GBP	**35,000**	35,000	0%
Xaver Hangartner	CHF	**183,499**	183,499	0%
	GBP	**35,000**	35,000	0%

Taxable benefits
As in the previous year, no taxable benefits are foreseen.

Pension benefits
Executive Directors receive pension benefits as per the legally required pension benefit plan in Switzerland. No significant changes to the pension plan are foreseen for 2023.

Annual Cash Bonus
The Committee has set targets for the year focused on adjusted operating profit, revenue and cash flow. The target details are considered commercially sensitive and therefore will only be disclosed on a retrospective basis in the 2023 annual report. In case overall performance achievement is below 60% of target, no bonus is paid. The maximum annual cash bonus paid is equivalent to 25% of the fixed annual renumeration.

Option grants
It is foreseen that in course of 2023, additional options will be granted to the Executive Directors under the existing option plan.

Statement of shareholder voting

At the 2022 AGM on June 29 2022 the results of shareholder voting on remuneration matters were as follows:

Approval of the Report on Directors' remuneration for the year to December 31, 2021.

Votes for[1]	For %	Votes against	Against %	Votes cast	Votes withheld[2]
47,976,791	99.87	62,571	0.13	48,039,362	9,804

The most recent binding vote for the Company's Remuneration Policy was also approved by shareholders at the 2021 AGM and effective from June 25 2021:

Votes for[1]	For %	Votes against	Against %	Votes cast	Votes withheld[2]
47,540,743	86.75	7,260,301	13.25	54,801,044	124,537

1. The "For" vote includes those giving the Company Chairman discretion.
2. A vote withheld is not a vote in law and is not counted in the calculation of the votes "For" and "Against" the resolution.

Votes "For" and "Against" are expressed as a percentage of total votes cast.

Directors' report

The Directors' Report for the year ended December 31, 2022 comprizes pages 62 to 65 of this report, together with the sections of the Annual Report incorporated by reference.

Directors

The names and biographical details of the current Directors are shown on pages 44 to 45 of this report.

Name	Date of appointment
Benjamin Bergo	December 7, 2020
Karen Brade	December 7, 2020
Carlo Centonze	December 7, 2020
Esther Dale-Kolb	December 7, 2020
Xaver Hangartner	December 7, 2020

Particulars of the Directors' emoluments and their beneficial and non-beneficial interests in the shares of the Company are shown on page 59.

Powers of the Directors

The Directors manage the business under the powers set out in the Company's Articles of Association. These powers include the ability to issue or buy back shares.

Shareholders' authority to empower the Directors to buy back up to 10% of the Company's issued share capital will be sought at the Annual General Meeting. The Company's Articles of Association can only be amended, or new Articles adopted, by a resolution passed by shareholders in a general meeting by at least three-quarters of the votes cast.

Directors' indemnity provisions

Throughout the year/period under review the Company has maintained directors' and officers' liability insurance cover in respect of the acts or omissions of its Directors and continues to do so. Details of the policy are provided to new Directors on appointment. In common with other companies, the Group has made qualifying third-party indemnity provisions for the benefit of its Directors against liabilities incurred in the execution of their duties.

Political donations

The Company made no political donations and incurred no political expenditure during the year/period under review.

Dividend

The Directors have declared that no dividend would be paid in the year 2023.

Substantial interests

Information provided to the Company pursuant to the Financial Conduct Authority's (FCA) Disclosure Guidance and Transparency Rules (DTRs) is published on a Regulatory Information Service and on the Company's website. As at September 30, 2023, the following information has been received, in accordance with DTR 5, from holders of notifiable interests in the Company's issued share capital.

Notifiable interest	Voting rights	% of capital disclosed	Nature of holding
Amati Global Investors Limited	11,607,000	8.26%	Ordinary Shares
Carlo Centonze	9,287,080	6.61%	Ordinary Shares
Dr. Murray Height	8,018,063	5.71%	Ordinary Shares
Premier Miton Group plc	6,827,500	4.86%	Ordinary Shares
Bombyx Growth Fund SC	6,407,120	4.56%	Ordinary Shares
Darren Morcombe	5,770,000	4.11%	Ordinary Shares
FIL Limited	5,357,000	3.81%	Ordinary Shares
Cortegrande AG[1]	5,186,237	3.81%	Ordinary Shares
Mike Smith trustees	4,268,628	3.04%	Ordinary Shares

1. A company wholly owned by Carlo Centonze and of which he is the sole director.

Other information relevant to this Directors' Report can be found on the following pages of this Report:

Topic	Page(s)
Share capital	122
Future developments	6-13
Research and development	10-13
Financial risk management objectives and policies	135-138
Events after the balance sheet date	141
Employee share option schemes	123
Restrictions on voting rights	150
Branches outside the UK	152
Engagement with employees	27
Engagement with suppliers, customers and others	27-29
Streamlined Energy & Carbon Reporting	17-18

Annual General Meeting

The Company's Annual General Meeting was held at the offices of Cenkos Securities plc, 6 7 8 Tokenhouse Yard, London EC2R 7AS on Thursday June 29, 2023 at 10.00 a.m. London time.

Disclosure of information to the auditors

The Directors, who were in office on the date of the approval of this report, confirm that, so far as they are aware, there is no relevant audit information of which the Company's auditor is unaware and that they have taken all reasonable steps to make themselves aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of s418 of the Companies Act 2006.

Going Concern

The Consolidated Financial Statements have been prepared on a going concern basis, which contemplates the continuity of normal business activity and the realization of the assets and the settlement of liabilities in the normal course of business.

The Group's business activities, together with the factors likely to affect its future development, performance and position are set out in the Strategic Report on pages 2 to 42. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the Financial Review on pages 30 to 35 and in Note 31 to the financial statements. In addition, Notes 41 and 42 to the financial statements include the Group's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments; and its exposures to credit risk and liquidity risk.

The Group's forecasts and projections for the next 12 months reflect the very challenging trading environment and show that the Group should be able to operate within the level of its current facility for at least 12 months from the date of signature of these financial statements if the facility drawdowns remain available. While the facilities are not committed, the Board has not received any indication from financing partners that the facilities are at risk of being terminated. Furthermore, the Board is in discussions with financial institutions to replace the currently uncommitted credit facilities by committed, long-term facilities, but the outcome of these discussions remains uncertain.

Nevertheless, the Board acknowledges the uncommitted status of the facilities which could be terminated during the forecast period requiring the refinancing of debts as per maturity dates disclosed in the Financial Review on page 35, indicates that a material uncertainty exists that may cast significant doubt on the Group's ability to continue as a going concern, and therefore the Group may not be able to realize its assets and discharge its liabilities in the normal course of business.

After considering the forecasts, sensitivities, and mitigating actions available to management and having regard to the risks and uncertainties to which the Group is exposed (including the material uncertainty referred to above), the Group's directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future and operate within its credit facilities for the period 12 months from date of signature. Accordingly, the financial statements continue to be prepared at the going concern basis.

Statement of Directors' responsibilities in respect of the annual report and financial statements

The directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors are required to prepare the group financial statements in accordance with United Kingdom adopted international accounting standards. The financial statements also comply with International Financial Reporting Standards (IFRSs) as issued by the IASB. The directors have also chosen to prepare the parent company financial statements under United Kingdom adopted international accounting standards. Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period.

In preparing these financial statements, International Accounting Standard 1 requires that directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements of the financial reporting framework are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the company's ability to continue as a going concern.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the corporate and financial information included on the company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Responsibility statement

We confirm that to the best of our knowledge:

- the financial statements, prepared in accordance with the relevant financial reporting framework, give a true and fair view of the assets, liabilities, financial position and profit or loss of the company and the undertakings included in the consolidation taken as a whole;
- the strategic report includes a fair review of the development and performance of the business and the position of the company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face; and
- the annual report and financial statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for shareholders to assess the company's position and performance, business model and strategy.

This responsibility statement was approved by the board of directors on October 26, 2023 and is signed on its behalf by:

Ross Ainger
Company Secretary

Independent auditor's report to the members of HeiQ PLC

1. Opinion

In our opinion:

- the financial statements of HeiQ Plc (the 'Parent Company') and its subsidiaries (together the 'Group') give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2022 and of the Group's loss for the year then ended;
- the Group financial statements have been properly prepared in accordance with United Kingdom adopted international accounting standards;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom adopted international accounting standards and as applied in accordance with the provisions of the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements which comprize:

- Consolidated statement of profit and loss and other comprehensive income;
- Consolidated and Parent Company statements of financial position;
- Consolidated and Parent Company statements of changes in equity;
- Consolidated and Parent Company statements of cash flows; and
- Related notes 1 to 46 to the consolidated financial statements and notes 1 to 16 to the Parent Company financial statements.

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom adopted international accounting standards and, as regards the Parent Company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

2. Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those 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 Group and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We confirm that we have not provided any non-audit services prohibited by the FRC's Ethical Standard to the Group or the Parent Company.

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

3. Material uncertainty related to going concern

We draw attention to note 3.b in the financial statements, which indicates that a material uncertainty exists that may cast significant doubt on the Group and Parent Company's ability to continue as a going concern due to the uncommitted nature of credit facilities that may be terminated during the going concern period.

The Group has access to credit facilities totaling CHF9.0 million (approximately US$9.8 million) as of September 30, 2023 in place with two banks but with materially the same conditions. The facilities are not limited in time, can be terminated by either party at any time and allow overdrafts and fixed cash advances with a duration of up to twelve months. If one or the other party terminates the agreement, fixed cash advances become due upon their defined maturity date.

The facilities do not contain financial covenants, but they do require the delivery of certain financial and operational information within a defined timeframe after the balance sheet date. As the publication of audited accounts for the year 2022 was delayed, the Company was not able to submit these accounts within the contractually defined timeframe but has received extensions to do so from both banks until October 31, 2023. As of September 30, 2023, the Group had drawn CHF6.3 million of the facilities (CHF2.4 million as December 31, 2022) with maturity dates of November 27, 2023 (CHF 4.5m), June 17, 2024 (CHF 0.8m) and September 30, 2024 (CHF 1m).

The Group's forecasts and projections for the next 12 months reflect the very challenging trading environment but show that the Group should be able to operate within the level of its current facilities for at least 12 months from the date of signature of these financial statements if the facility drawdowns remain available. While the facilities are not committed, and the drawdowns currently mature on November 27, 2023 (CHF 4.5m), June 17, 2024 (CHF 0.8m) and September 30, 2024 (CHF 1m), the Board has not received any indication from financing partners that the facilities are at risk of being terminated. Furthermore, the Board is in discussions with financial institutions to replace the currently uncommitted credit facilities by committed, long-term facilities, but the

outcome of these discussions remain uncertain.
However, the uncommitted status of the facilities, which could be terminated during the forecast period requiring the refinancing of debts indicates that a material uncertainty exists that may cast significant doubt on the Group's and Parent Company's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Our evaluation of the directors' assessment of the Group's and Parent Company's ability to continue to adopt the going concern basis of accounting included:

- obtaining an understanding of the relevant controls that the Group has established regarding the drafting, review and approval of the Group's going concern assessment;
- obtaining an understanding of the financing facilities available to the Group, including repayment terms and considering whether there were any covenants;
- assessing the status of the Group's refinancing options with management involved in the negotiations with lenders;
- testing the mechanical accuracy of the model used to prepare the Group's cash flow forecasts;
- evaluating the consistency of the Directors' forecasts with other areas of the audit, including asset impairments, revenue recognition for long-term contracts, deferred tax asset recoverability and investment in subsidiaries and intercompany recoverability;
- challenging the key assumptions within the going concern assessment including those in the Group's strategy which relate to revenue growth and cash flow generation. We have challenged these with reference to historical trading performance, subsequent period results, market expectations, peer comparison, and assessing whether the Group's latest savings measures and sales initiatives were reasonable;
- assessed the feasibility of mitigating actions available to the Directors, should these be required, if the forecast performance is not achieved; and
- assessed the appropriateness of the Group's disclosures over the going concern basis and the material uncertainty arising with reference to our knowledge and understanding of the assumptions taken by the Directors and FRC guidance.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

4. Summary of our audit approach

Key audit matters	The key audit matters that we identified in the current year were: • Material uncertainty related to going concern (refer to section 3 above) • Deficiencies in the internal control environment • Revenue recognition on long-term contracts with customers • Impairment of intangible assets and goodwill • Recoverability of accounts receivable on contracts with customers • Provision for obsolete and excess inventory
Materiality	The materiality that we used for the Group financial statements was $780,000 which was determined on the basis of revenues and net assets of the Group.
Scoping	We focused our Group audit on 14 components which account for 99% of the Group's revenue, 92% of the Group's losses and 97% of the Group's net assets.
Significant changes in our approach	The following key audit matters were identified by the previous auditor in the prior year, but we do not consider them to be key audit matters for the current year: • Accounting for acquisition of subsidiaries – valuation of the acquired intangible assets, inventory and consideration • Valuation of the Group's net Defined benefit obligations The following are new key audit matters we identified in the current year, primarily due to the level of audit effort required in these areas including consideration of misstatements identified: • Material uncertainty related to going concern • Deficiencies in the internal control environment • Recoverability of accounts receivable on contracts with customers • Provision for obsolete and excess inventory The prior year key audit matter concerning the accounting for services, royalty, licenses and other operating income was refined to cover revenue recognition on long term contracts with customers.

Independent auditor's report to the members of HeiQ PLC

5. Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

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. In addition to the matter described in the material uncertainty related to going concern section, we have determined the matters described below to be the key audit matters to be communicated in our report.

5.1 Deficiencies in the internal control environment

Key audit matter description

As discussed in the Audit Committee Report on page 49, the Group's control environment requires significant improvement, particularly related to management review controls, balance sheet reconciliations and transactional processing controls (particularly in accounts receivable and revenue recognition). The Group's control environment also needs to be properly formalized and documented. In addition, general IT control deficiencies relating to access and change management controls also need to be addressed.

These control deficiencies were identified during the FY22 external audit as part of our first audit of the Group which resulted in and are part of the cause of the prior year errors as described in note 2 of the Group financial statements. The overall impact of prior year adjustment to the 31 December 2021 financial statements was $3.9m on the net assets and profit after tax, changing the net result of the Group from a profit after tax of $2.5m to a loss after tax of $1.4m.

These prior year errors evidence a lack of management review controls over significant transactions such as business combinations and the annual goodwill impairment review as well as controls over transactional activities such as accounting for leases and revenue recognition. In summary:

- We identified a control weakness over the review of the accounting for the Purchase Price Allocation ('PPA') of Chrisal. This resulted in an increase of $1.5m on non-controlling interest and $0.2m in additional amortization.
- We also identified a control weakness over the accounting for leases where management effectively recorded the same lease contract twice.
- Further significant prior year misstatements and control deficiencies relating to revenue recognition and annual goodwill impairment are as set out in the key audit matters below (sections 5.2 and 5.3 respectively).

Whilst management have sought to make improvements to the IT system environment and to the formalization of internal control activities in response to the errors identified as described above, the process continues to be complex and involve calculations performed in spreadsheets increasing the risk of fraud and error.

5.1 Deficiencies in the internal control environment continued

How the scope of our audit responded to the key audit matter	We adopted a fully substantive audit approach, with no reliance on internal controls. We adapted our audit in order to respond to the identified deficiencies in the control environment. Consequently, the nature, extent and timing of our audit procedures were modified as a result of the pervasive risks arising from the deficiencies in the control environment. Specifically: • we increased our coverage by including an additional 10 components that are subject to specific audit procedures. (See section 7 below for details of our scoping assessment); • we used a lower performance materiality (being 60% of materiality) than would ordinarily be used if the control environment had been found to be effective. This increased the volume of substantive testing completed (see section 6 below for our materiality assessment); • we tested a number of transactional balances (including accounts receivable, accruals, prepayments, trade payable, cash and inventory) at an elevated risk level and have therefore continued to perform an increased level of sample testing; • we performed additional procedures to identify and address fraud risks, including the involvement of a forensic specialist. We performed targeted procedures in relation to specific fraud risks, including the risk of management override of controls and the potential fraud risk in revenue recognition (see section 5.2); • senior members of the audit team have performed audit testing directly in the more complex areas of accounting, including revenue recognition, purchase price allocation, impairment testing and going concern; • we have increased the nature and extent of our testing on revenue given the control deficiencies identified in the current year as well as the complex nature of some “take or pay” arrangements.
Key observations	The Group’s internal controls have not yet reached the maturity level expected for a listed Group. There are a number of significant improvements that need to be made in order to improve the accuracy and completeness of the underlying accounting records and reduce the number of audit misstatements identified. Although there are processes identified at the key components addressing certain risks, there is limited evidence and documentation in place. We were unable to test the operating effectiveness of any controls which resulted in a significant increase in the amount of substantive audit work performed.

Independent auditor's report to the members of HeiQ PLC

continued

5.2 Revenue recognition of long-term exclusivity contracts with customers

Key audit matter description	HeiQ Group accounts for its revenues in accordance with the requirements of IFRS 15 – *Revenues from Contracts with Customers*. Most of HeiQ's revenues are recognized at a point in time, once the performance obligation has been fulfilled. Out of total revenues generated of \$47.2m (2021: \$55.4m), \$45.2m (2021: \$55.4m), was recognized at point in time, principally from delivery of materials, and the remaining amount was generated over time from licenses. HeiQ also engages in "take or pay" arrangements, in which the customers agree to purchase a contractual minimum quantity of product, usually against a specified exclusivity during the same period. We identified that these "take or pay" contracts include complex elements of revenue recognition. The identification of the performance obligation and the timing of fulfillment of the performance obligation for such contracts is complex and requires judgment in accordance with IFRS 15 *Revenue from Contracts with Customers.* HeiQ has recorded \$5.9m of liabilities representing unsatisfied performance obligations as of 31 December 2022. This corresponds to advances received from customers for contractual obligations not fulfilled at year-end. See note 7. In addition, HeiQ had contractual agreements with a customer which were in place for several years, however the open trade receivables have aged significantly. The contract was not effectively enforced by the Group and therefore the underlying revenue should not have been recognized under IFRS 15 principles. As a result, a prior year restatement decreasing revenue by \$2.5m has been recorded in the financial statements as disclosed in Note 2. Furthermore, given the control deficiencies identified, this has also resulted in the correction of material misstatements to the revenue recognized in the current year. Refer to note 7 for the Group's accounting policy on revenue, as well as the Audit Committee report on page 49.
How the scope of our audit responded to the key audit matter	To respond to this key audit matter, we have: • obtained an understanding of relevant controls around revenue recognition; • tested a sample of customer statement reconciliations and increased the extent of our coverage of reviewed revenue contracts given the control deficiencies identified; • assessed "take or pay" agreements to identify potential performance obligations; • involved an internal specialist to assess the revenue contracts and management's accounting treatment, especially on the revenue recognition criteria for "take or pay" agreements; • assessed recognition criteria for liabilities representing unsatisfied performance obligations at the year end; • involved an internal specialist to evaluate whether the revenue recognition criteria in accordance with IFRS 15 were met by agreeing material revenue transactions to contracts; and • assessed appropriateness of the financial statement disclosures.
Key observations	From the work performed above, we concluded that revenue recognition of long term contracts with customers was appropriately stated after all audit misstatements were corrected by management.

5.3 Impairment of intangible assets and goodwill

Key audit matter description

Under IAS 36 *'Impairment of Assets'* the Group is required to perform an annual impairment review of its goodwill as well as impairment testing of its intangible assets where there are indicators of impairment and where there are indicators that previously recognized impairment losses may no longer be appropriate.

The carrying value of the goodwill is $8.5m (2021: $19.1m) and other intangible assets $11.9m (2021: $11.7m). Other intangible assets include internally developed assets, brand names and customer relationships that were recognized with previous business combinations and acquired technologies. See note 18 for further details.

The goodwill is allocated to one of four Cash Generating Units ('CGUs'): ChemTex, Chrisal, RAS and Life. Under IAS 36 *Impairment of assets*, each of the CGUs with goodwill is tested annually for impairment while other intangible assets are assessed for impairment indicators. The impairment review involves management making estimates to determine the value in use of the CGU (being the net present value of the forecast cash flows). This is then compared to the carrying value of the CGUs to identify whether any impairment is required.

The value in use model uses a discounted cash flow technique and utilizes the forecasts approved by the Board's five year plan. A perpetuity growth based on long-term Consumer Price Index is used for subsequent periods. The model is sensitive to a number of assumptions in the budget, including sales forecasts and gross margin.

An impairment charge of $10.6m was recognized against the goodwill balance in the current year following the annual impairment review. The goodwill impairment loss relates to the full impairment of the goodwill allocated to the Life CGU of $5.2m and partial impairment of the CGUs of Chrisal ($2.4m) and RAS ($3.0m).

Additionally, we identified a prior year misstatement on the impairment review for its 2021 financial statements due to overly optimistic assumptions used based on the data and environment existing at 31 December 2021. This resulted in a $2.3m reduction of the goodwill balance as at 1 January 2022, which is split between the Chrisal CGU ($1.3m) and the RAS CGU ($1.0m). See note 2 for further details.

The key audit matter therefore relates to the appropriateness of management's estimate of the future trading performance (particularly sales and gross margin) of each CGU, which involves significant management judgment. Furthermore, the impairment model is complex and is prepared using spreadsheets which increases the potential for error.

Refer to notes 3 and 18 for the Group's impairment accounting policies and the key assumptions used in the impairment assessment, as well as the Audit Committee report on page 49.

Independent auditor's report to the members of HeiQ PLC

continued

5.3 Impairment of intangible assets and goodwill continued

How the scope of our audit responded to the key audit matter	To respond to this key audit matter, we have: • obtained an understanding of the relevant controls around the impairment review, including the budget and forecast setting processes which support the cash flows used within the impairment model (and going concern assessment); • assessed the methodology applied in performing the impairment review, with reference to the requirements of IAS 36 'Impairment of Assets'; • assessed management's process of determining the cash flow forecast and challenged the judgments applied by analysing both historic performance data, current performance, industry trends and performing a search for contradictory evidence; • evaluated and challenged key macroeconomic assumptions underlying the model and projections based on the Group's business plan and evaluated management's assessment of risk, including political and economic risk; • challenged the key assumptions utilized in the cash flow forecasts, in particular the key operating metrics including volumes, yields and costs in the models against historical performance and independent external sources and industry reports, and investigated any outliers identified in the Group assumptions; • assessed the long-term growth rates, inflation rates and discount rates applied to CGU impairment model by comparing the rates used to third party evidence, and by comparing the discount rates to independent rates we determined with our valuation specialists; • challenged the allocation of the impairment loss between the current and prior periods as well as the consistency of the forecasts used by management in their 2021 impairment review; • engaged our modelling specialists to assist in evaluating the integrity of the spreadsheet model and the build-up for the Weighted Average Cost of Capital; • assessed management's sensitivity analysis in relation to the key assumptions used in the cash flow forecasts; and • evaluated the appropriateness of the Group's disclosures regarding the CGU impairment, key assumptions and sensitivities.
Key observations	As a result of our work, we identified a number of material adjustments to goodwill and intangible assets relating to both FY21 and FY22. During testing for impairment for FY22 we identified that the models prepared for FY21 incorporated assumptions which we consider overly optimistic based on the conditions existing at 31 December 2021 and the data then available. This led to a revised FY21 impairment analysis, which in turn resulted in the restatement of goodwill balances as described above as well as material adjustment in the current year. From the work performed above, we concluded that intangible assets and goodwill are appropriately stated after all audit misstatements were corrected by management.

5.4 Recoverability of account receivable from long-term exclusivity contracts with customers

Key audit matter description	At 31 December 2022, gross trade receivables of $6.5m were held by the Group (2021: $14.7m) with a provision for expected credit losses for $0.4m (2021: $0.3m). The Group also held trade receivables that were aged over 120 days with a balance of $2.4m (2021: $3.0m). Following a period of deteriorating market demand in the later part of 2022, there was emerging heightened risk around the recoverability of debtors, particularly in relation with customers that have long-term exclusivity contracts. Under IFRS 9 - *Financial instruments,* management is required to evaluate all expected credit losses based on historic, current and forward-looking information. In addition to recording specific provisions against individual trade receivable balances related to “take or pay” arrangements, management recognizes a provision for expected credit losses under the simplified approach permitted by IFRS 9, by modelling an estimate of future lifetime expected credit losses for the entire debtor book based on ageing of the invoices. In the current economic environment, there is increased management judgment regarding expected credit losses. The trade receivables related to “take or pay” arrangements include a $3.0m receivable with a customer in the US for which the Group has commenced legal proceedings. The balance is overdue between 60 and 120 days and management has reflected the overdue and the legal proceedings in its expected credit loss assessment. Additionally, as disclosed in note 2, management restated the 31 December 2021 consolidated statement of financial position resulting in a decrease to receivables by $2.4m and a decrease to “take or pay” revenues by $2.5m as the criteria for revenue recognition under IFRS 15 had not been met. Refer to note 3.r for the Group’s receivable provisioning policy, note 23 ‘Trade receivables’ and the Audit Committee report on page 49.
How the scope of our audit responded to the key audit matter	To respond to this key audit matter, we have: • obtained an understanding of the relevant controls regarding management’s provisioning policy and the assessment of expected credit losses; • assessed management’s provisioning policy. This work included considering compliance with the requirements of IFRS 9, checking the mechanical accuracy of the model, considering expected credit losses by country and validating country specific risk factors to external reports in light of the current macroeconomic environment; • performed sensitivities on key assumptions used in the model and recalculated the expected credit losses provision based on sensitized assumptions; • assessed the appropriateness of the total provision for trade receivables at the period end through evaluating aging of trade receivables and agreeing to subsequent cash receipts; • evaluated consistency with information obtained through other parts of our audit, including our review of litigation, claims and disputes; and • tested a sample of the customers provided for within the specific provision, and a sample of customers not provided for within the specific provision, and assessed the level of provision against each customer.
Key observations	During our audit procedures, we challenged management’s assertion that a number of long dated trade receivables were recoverable resulting in significant material adjustments and the derecognition of certain receivables as disclosed in the prior year adjustment in note 2. Our review and challenge of management’s calculation of expected credit losses resulted in a further material adjustment to the expected credit loss provision which was corrected in the current period. Following the work performed above, and the correction of identified audit adjustments, we concluded that trade receivables remaining on the balance sheet are recoverable and a sufficient provision has been recognized. We identified the need for improvement in controls over recoverability of account receivable on contracts with customers and expected credit loss provision.

Independent auditor's report to the members of HeiQ PLC

continued

5.5 Provision for obsolete and excess inventory

Key audit matter description

As at 31 December 2022, the Group held $13.2m of inventory (2021: $13.8m). The inventory provision recorded against these amounts at the balance sheet date for FY2022 was $4.9m (2021: $0.5m).

A significant portion of the Group's inventory balances are in raw materials and finished goods that were in high demand during the COVID-19 pandemic. There has been a reduction of net realisable value of inventory as demand for these products has slowed down.

Furthermore, there is a risk that the provision for obsolete inventory, and for excess inventory held as a result of reduced trading caused by the slowdown of the market demand in the later part of 2022 is not sufficient.

The Group's accounting policy for providing for obsolete and excess inventory is based upon the forecast of market demand and the assessment of the "take or pay" contracts. The inventory obsolescence provision is an accounting estimate with high estimation uncertainty due to the significance of judgments and assumptions made including future projected sales. In addition, specific provisions are made for known products which management considers unlikely to be sold at a positive margin.

The calculation of the inventory provision requires management judgment to assess the demand from customers' "take or pay" contracts and the expected realisable value based on the quantities held and expected sell through patterns. Refer to note 2 for the Group's inventory provisioning policy and note 22 'Inventories'.

How the scope of our audit responded to the key audit matter

To respond to this key audit matter, we have:

- obtained an understanding of the relevant controls that the Group has established regarding the inventory provision, including understanding management estimate of business impact of the unwind of COVID-19 pandemic demand and the related impact on the provision on inventories;
- assessed the historical accuracy of management's provisioning percentages for aged inventory through a retrospective review of the level of provision recorded in prior years compared to the actual level of inventory written off against the provision held. We also factored in our experience of management's ability to forecast future sales and cash flows as evidenced from our work on impairment;
- compared the methodology used to calculate the inventory provision and its consistency with prior periods;
- compared the methodology applied in calculating the slow-moving inventory obsolescence provision to the Group's policy and recalculated the provision, with reference to the policy;
- assessed the reasonableness of management's methodology for identifying 'excess inventory' in order to calculate the excess inventory provision for "take or pay" contracts;
- assessed the accuracy of the data used in the inventory provision calculation by testing the ageing of a sample of inventory items back to supplier invoice;
- understood the change in trends at the year-end 2022 and in the subsequent period that evidence a slowdown in customer demand and assessed management's turnaround plans in order to evaluate the reasonableness of the specific provision held against this inventory; and
- inquired directly with warehouse staff during warehouse visits whether they foresaw potential future usage for inventories, particularly those which were aged in excess of 6 months.

Key observations

During our work we noted that management's procedures to determine obsolete inventory did not appropriately consider future sales forecasts and were overly optimistic. Further, management did not perform a detailed obsolete inventory review for some of the key inventory locations.

As a result of our challenge of management accounting estimates, and in particular sensitising downward the forecasted sales, in addition to our knowledge gained during our warehouse visits, we identified a material audit misstatement to provision for slow moving inventory that was corrected in the period.

From the work performed above, we concluded that inventory has been appropriately provided for after the correction for identified audit adjustments. We identified the need for improvement in controls over obsolete inventory reviews, particularly where future sales forecasts were overly optimistic.

6. Our application of materiality

6.1. Materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgment, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent Company financial statements
Materiality	$780,000	$403,000
Basis for determining materiality	We determined materiality using a combination of benchmarks. Our materiality of $780,000 represented 1.65% of Group revenues and 1.9% of Group net assets.	Parent Company materiality was determined based on 1.0% of the Parent Company net assets, capped at a percentage of group materiality.
Rationale for the benchmark applied	Based on our professional judgment, we consider a combination of revenue and Group net asset to be the most appropriate benchmark to determine materiality as the Group is publicly listed and in a growth phase with new product launch. In addition we consider that the focus of investors is not related to net result before tax because of significant loss in the current year.	We have considered net assets as the appropriate measure given the Parent Company is primarily a holding Company for the Group.

6.2. Performance materiality

We set performance materiality at a level lower than materiality to reduce the probability that, in aggregate, uncorrected and undetected misstatements exceed the materiality for the financial statements as a whole.

	Group financial statements	Parent Company financial statements
Performance materiality	60% of Group materiality	60% of Parent Company materiality
Basis and rationale for determining performance materiality	In determining performance materiality, we considered the following factors: a. the fact that is our first year audit; b. our assessment of the Group's overall control environment in the light of the number of control deficiencies identified during the audit (as detailed within the key audit matter above); c. prior period errors found in the current year; and d. the nature, number and size of misstatements identified and corrected during the audit.	

6.3. Error reporting threshold

We agreed with the Audit Committee that we would report all audit differences in excess of $39,000, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

7. An overview of the scope of our audit

7.1. Identification and scoping of components

Our Group audit was scoped by obtaining an understanding of the Group and its environment, including Group-wide controls, and assessing the risks of material misstatement at the Group level.

We focused our Group audit on 14 components. Three of these were subject to a full audit being HeiQ Plc, HeiQ Materials AG and HeiQ ChemTex Limited. In addition, audit of specified balances was performed on the remaining 11 components, where the extent of our testing was based on our assessment of the risks of material misstatement and of the materiality of the Group's operations at those components. In response to the deficiencies within the control environment (see section 5.1 above), we increased the number of components that are subject to audit of specified balances from one to 11.

Independent auditor's report to the members of HeiQ PLC

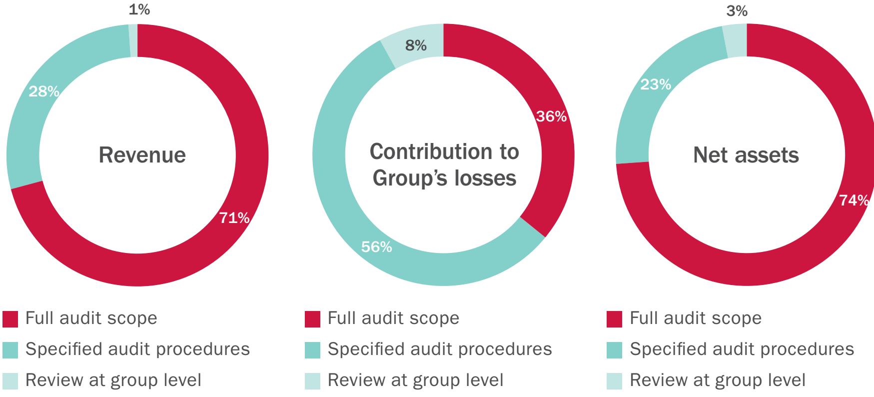
continued

These components represent the principal business units and account for 99% of the Group's revenue, 92% of the Group's losses and 97% of the Group's net assets. They were also selected to provide an appropriate basis for undertaking audit work to address the risks of material misstatement identified above.

Our audit work at the components, excluding the Parent company, was executed at levels of materiality applicable to each individual entity which were lower than Group materiality and ranged from $187,000 to $304,000.

At the Group level we also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement of the aggregated financial information of the remaining components not subject to audit or audit of specified account balances.

All audit work for the purpose of expressing an opinion on the Group's financial statements is performed by Deloitte, except the audit of specified account balances and the inventory count observation of HeiQ Chrisal which are performed by another audit firm.



7.2. Our consideration of the control environment

As described in the Audit Committee report on page 49 and the Key Audit Matter in section 5.1, we identified significant weaknesses in the Group's internal control environment. The Company has not developed robust processes relating to the risk associated with the material account balances and transactions. In addition, new business risks are addressed and discussed on an "ad hoc" basis, often with no documentation.

7.3. Our consideration of climate-related risks

In the Group's sustainability report, the Group assess the impact of both its carbon emissions and energy usage as part of its wider ESG strategy. Carbon emissions and energy usage are rated as the two areas with the highest impact in the matrix that the Group has developed. Both calculations have followed the UK Government's Environmental Reporting guidelines.

Our procedures did not identify any specific controls within the organization in considering the impact of client risks, however the identification of carbon emissions and energy consumption as the two most material impacts within the ESG topics is consistent with our understanding of the business.

As set out in the CEO's report, the Group has focused on the ongoing replacement of hydrocarbon based raw materials in the raw materials they use for manufacturing by replacing them with non-hydrocarbon materials. The Group has stated that their aim is to contribute to the decarbonization of the textile industry.

We performed our own qualitative risk assessment of the potential impact of climate change on the Group's account balances and classes of transaction and did not identify any reasonably possible risks of material misstatement. With the involvement of climate change and sustainability specialists, we evaluated management's risk assessment process in respect of the potential impact of climate change in judgments and estimates taken in the financial statements, and evaluated management's Task Force on Climate-Related Disclosures in line with the latest guidance. We also read the climate-related disclosures in the Strategic Report to consider whether it is materially consistent with the financial statements and our knowledge obtained in the audit.

7.4. Working with other auditors

Two financially significant components, HeiQ Materials AG and HeiQ Chemtex Inc. were audited by Deloitte Zurich and therefore that audit team received detailed instructions, supervision, direction and oversight by the Group Engagement team.

We instructed a third party auditor to audit specified account balances for HeiQ Chrisal N.V. The Group audit team sent detailed instructions, supervized and performed onsite review of the work performed.

8. Other information

The other information comprizes the information included in the annual report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

9. Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine 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 directors are responsible for assessing the Group's and the Parent Company'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 directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

10. 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 ISAs (UK) 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 on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

11. Extent to which the audit was considered capable of detecting irregularities, including fraud

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below.

11.1. Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, we considered the following:

- the nature of the industry and sector, control environment and business performance including the design of the Group's remuneration policies, key drivers for directors' remuneration, bonus levels and performance targets.
- results of our enquiries of management, the directors and the audit committee about their own identification and assessment of the risks of irregularities, including those that are specific to the Group's sector and stage of development.
- any matters we identified having obtained and reviewed the Group's documentation of their policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance.
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud.
  - the internal controls established to mitigate risks of fraud or non-compliance with laws and regulations.
- the matters discussed among the audit engagement team and relevant internal specialists, including tax, valuations, IT and forensic specialists regarding how and where fraud might occur in the financial statements and any potential indicators of fraud.

As a result of these procedures, we considered the opportunities and incentives that may exist within the organization for fraud and identified the greatest potential for fraud in the following areas: revenue recognition. In common with all audits under ISAs (UK), we are also required to perform specific procedures to respond to the risk of management override.

We also obtained an understanding of the legal and regulatory frameworks that the Group operates in, focusing on provisions of those laws and regulations that had a direct effect on the determination of material amounts and disclosures in the financial statements. The key laws and regulations we considered in this context included the UK Companies Act, and relevant tax regulations.

In addition, we considered provisions of other laws and regulations that do not have a direct effect on the financial statements but compliance with which may be fundamental to the Group's ability to operate or to avoid a material penalty.

11.2. Audit response to risks identified

As a result of performing the above, we identified revenue recognition on long-term contracts with customers as a key audit matter related to the potential risk of fraud or non-compliance with laws and regulations. The key audit matters section of our report explains the matter in more detail and also describes the specific procedures we performed in response to that key audit matter.

In addition to the above, our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with provisions of relevant laws and regulations described as having a direct effect on the financial statements.
- performed enhanced fraud risk procedures as agreed with the forensic specialist.
- enquiring of management, the audit committee and external legal counsel concerning actual and potential litigation and claims.
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud.
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with relevant regulatory authorities.
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgments made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members, including internal specialists and significant component audit teams, and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Report on other legal and regulatory requirements

12. Opinions on other matters prescribed by the Companies Act 2006

In our opinion the part of the directors' remuneration report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Group and the Parent Company and their environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the directors' report.

13. Matters on which we are required to report by exception

13.1. Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

13.2. Directors' remuneration

Under the Companies Act 2006 we are also required to report if in our opinion certain disclosures of directors' remuneration have not been made or the part of the directors' remuneration report to be audited is not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

14. Other matters which we are required to address

14.1. Auditor tenure

Following the recommendation of the audit committee, we were appointed by the Board of Directors on 6 October 2022 to audit the financial statements for the year ending 31 December 2022. The period of total uninterrupted engagement of the firm is one year, covering the year ended 31 December 2022. We have informed the Company's board that we intend to resign as auditors and will not seek re-election at the forthcoming Annual General Meeting.

14.2. Consistency of the audit report with the additional report to the audit committee

Our audit opinion is consistent with the additional reports to the audit committee we are required to provide in accordance with ISAs (UK).

15. Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

As required by the Financial Conduct Authority (FCA) Disclosure Guidance and Transparency Rule (DTR) 4.1.15R and 4.1.18R, these financial statements will form part of the Electronic Format Annual Financial Report filed on the National Storage Mechanism of the FCA in accordance with DTR 4.1.15R-DTR 4.1.18R. This auditor's report provides no assurance over whether the Electronic Format Annual Financial Report has been prepared in compliance with DTR 4.1.15R-DTR 4.1.18.

William Eversden (Senior statutory auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
London, United Kingdom
October 27, 2023

Consolidated statement of profit and loss and other comprehensive income

For the year ended December 31, 2022

	Note	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated*)*
Revenue	7	**47,202**	55,419
Cost of sales	9	**(33,745)**	(30,022)
Gross profit		**13,457**	25,397
Other income	10	**4,832**	6,625
Selling and general administrative expenses	11	**(30,969)**	(24,680)
Impairment loss on intangible assets	18	**(11,651)**	(2,454)
Impairment loss on property, plant & equipment	19	**(730)**	–
Other expenses	13	**(4,184)**	(6,242)
Operating loss		**(29,245)**	(1,354)
Finance income	14	**683**	534
Finance costs	15	**(1,273)**	(569)
Loss profit before taxation		**(29,835)**	(1,389)
Income tax	16	**21**	16
Loss after taxation		**(29,814)**	(1,373)
Other comprehensive income:			
Exchange differences on translation of foreign operations		**(1,914)**	(2,550)
Items that may be reclassified to profit or loss in subsequent periods		**(1,914)**	(2,550)
Actuarial gains/(losses) from defined benefit pension plans		**1,380**	1,124
Income tax relating to items that will not be reclassified subsequently to profit or loss		**(276)**	(225)
Items that will not be reclassified to profit or loss in subsequent periods		**1,104**	899
Other comprehensive loss for the year		**(810)**	(1,651)
Total comprehensive loss for the year		**(30,624)**	(3,024)
Loss attributable to:			
Equity holders of HeiQ		**(29,251)**	(1,177)
Non-controlling interests		**(563)**	(196)
		(29,814)	(1,373)
Total Comprehensive loss attributable to:			
Equity holders of the Company		**(30,061)**	(2,828)
Non-controlling interests		**(563)**	(196)
		(30,624)	(3,024)
Loss per share:			
Basic (cents)**	17	**(21.92)**	(0.91)

* The consolidated statement of profit and loss and other comprehensive income has been restated in the comparative period as described in Note 2.

**The effect of share options is anti-dilutive and therefore not disclosed.

Consolidated statement of financial position

As at December 31, 2022

	Note	**As at December 31, 2022 US$'000**	As at December 31, 2021 US$'000 *(restated*)*	As at December 31, 2020 US$'000 *(restated*)*
ASSETS				
Intangible assets	18	**20,442**	30,773	5,264
Property, plant and equipment	19	**9,802**	6,865	5,467
Right-of-use assets	20	**7,819**	7,974	2,564
Deferred tax assets	32	**538**	1,337	1,288
Other non-current assets	21	**137**	333	206
Non-current assets		**38,738**	47,282	14,789
Inventories	22	**13,168**	13,770	13,540
Trade receivables	23	**6,487**	14,656	10,080
Other receivables and prepayments	24	**4,262**	3,876	2,609
Cash and cash equivalents		**8,488**	14,560	25,695
Current assets		**32,405**	46,862	51,924
Total assets		**71,143**	94,144	66,713
EQUITY AND LIABILITIES				
Issued share capital and share premium	26	**205,874**	195,714	184,096
Other reserves	28	**(128,017)**	(127,195)	(125,968)
Retained deficit	28	**(39,466)**	(11,525)	(10,348)
Equity attributable to HeiQ shareholders		**38,391**	56,994	47,780
Non-controlling interests		**1,948**	2,541	(20)
Total equity		**40,339**	59,535	47,760
Lease liabilities	30	**6,558**	7,209	2,304
Long-term borrowings	31	**1,445**	1,605	1,400
Deferred tax liability	32	**1,253**	2,333	857
Other non-current liabilities	33	**4,714**	2,619	3,425
Total non-current liabilities		**13,970**	13,766	7,986
Trade and other payables	34	**5,322**	8,271	5,815
Accrued liabilities	35	**4,978**	3,386	2,168
Income tax liability	16	**314**	51	1,495
Deferred revenue	36	**1,285**	1,004	–
Short-term borrowings	31	**2,893**	1,157	173
Lease liabilities	30	**1,264**	905	349
Other current liabilities	38	**778**	6,069	967
Total current liabilities		**16,834**	20,843	10,967
Total liabilities		**30,804**	34,609	18,953
Total equity and liabilities		**71,143**	94,144	66,713

* The consolidated statement of financial position has been restated for the comparative periods as described in Note 2.

The Notes on pages 84 to 141 form an integral part of these Consolidated Financial Statements. The Consolidated Financial Statements were approved and authorized for issue by the Board of Directors on October 26, 2023 and signed on its behalf by:

Xaver Hangartner
Chief Financial Officer

Consolidated statement of changes in equity

For the year ended December 31, 2022

	Note	Issued share capital and share premium US$'000	Other reserves US$'000	Retained deficit US$'000 *(restated*)*	Equity attributable to HeiQ shareholders US$'000 *(restated*)*	Non-controlling interests US$'000 *(restated*)*	Total equity US$'000 *(restated*)*
Balance at January 1, 2021 (as presented)		184,096	(125,968)	(8,499)	49,629	(20)	49,609
Prior year adjustment in respect of revenue recognition		–	–	(1,849)	(1,849)	–	(1,849)
Balance at January 1, 2021 (as restated)		184,096	(125,968)	(10,348)	47,780	(20)	47,760
Loss after taxation		–	–	(1,177)	(1,177)	(196)	(1,373)
Other comprehensive (loss)/income		–	(1,651)	–	(1,651)	–	(1,651)
Total comprehensive (loss)/income for the year		–	(1,651)	(1,177)	(2,828)	(196)	(3,024)
Issuance of shares	26	11,618	–	–	11,618	–	11,618
Share-based payment charges	27	–	424	–	424	–	424
Amounts arising on business combinations	5	–	–	–	–	2,757	2,757
Transactions with owners		11,618	424	–	12,042	2,757	14,799
Balance at December 31, 2021		195,714	(127,195)	(11,525)	56,994	2,541	59,535
Loss after taxation		**–**	**–**	**(29,251)**	**(29,251)**	**(563)**	**(29,814)**
Other comprehensive (loss)/income		**–**	**(810)**	**–**	**(810)**	**–**	**(810)**
Total comprehensive (loss)/income for the year		**–**	**(810)**	**(29,251)**	**(30,061)**	**(563)**	**(30,624)**
Issuance of shares	**26**	**10,160**	**–**	**–**	**10,160**	**–**	**10,160**
Share-based payment income	**27**	**–**	**(12)**	**–**	**(12)**	**–**	**(12)**
Dividends paid to minority shareholders	**28**	**–**	**–**	**–**	**–**	**(243)**	**(243)**
Capital contributions from minority shareholders		**–**	**–**	**–**	**–**	**764**	**764**
Adjustments arising from change in non-controlling interests	**5a**	**–**	**–**	**(2,445)**	**(2,445)**	**(616)**	**(3,061)**
Transfer of shares to non-controlling interest	**5b**	**–**	**–**	**3,755**	**3,755**	**65**	**3,820**
Transactions with owners		**10,160**	**(12)**	**1,310**	**11,458**	**(30)**	**11,428**
Balance at December 31, 2022		**205,874**	**(128,017)**	**(39,466)**	**38,391**	**1,948**	**40,339**

* The consolidated statement of changes in equity has been restated for the comparative periods as described in Note 2.

Consolidated statement of cash flows

For the year ended December 31, 2022

Cash flows from operating activities	Note	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000 (Restated*)
Loss before taxation		**(29,835)**	(1,389)
Cash flow from operations reconciliation:			
Depreciation and amortization	9, 11	**3,655**	2,947
Impairment expense	13	**12,380**	2,454
Net loss on disposal of assets	43	**(5)**	(34)
Write-off of intangible assets	13	**897**	–
Fair value gain on derivative liability	38	**(371)**	–
Gain on earnout consideration	5g	**–**	(80)
Finance costs		**273**	225
Finance income		**(2)**	(18)
Pension expense		**247**	156
Non-cash equity compensation	12	**138**	498
Gain from lease modification	20	**(68)**	–
Other costs paid in shares	26	**235**	–
Currency translation		**(61)**	(793)
Working capital adjustments:			
Decrease in inventories	43	**602**	2,028
Decrease/(Increase) in trade and other receivables	43	**7,783**	(2,305)
(Decrease)/Increase in trade and other payables	43	**2,543**	2,181
Cash generated (used in)/from operations		**(1,589)**	5,870
Taxes paid	16	**(870)**	(2,462)
Net cash generated (used in)/from operating activities		**(2,459)**	3,408
Cash flows from investing activities			
Consideration for acquisition of businesses	43	**(1,587)**	(8,857)
Cash assumed in asset acquisition	26	**65**	–
Purchase of property, plant and equipment	19	**(3,418)**	(994)
Proceeds from the disposal of property, plant and equipment		**53**	138
Development and acquisition of intangible assets	18	**(3,865)**	(2,969)
Interest received		**2**	18
Net cash used in investing activities		**(8,750)**	(12,664)
Cash flows from financing activities			
Interest paid on borrowings		**(110)**	(108)
Repayment of leases	20, 43	**(992)**	(662)
Interest paid on leases		**(163)**	(117)
Proceeds from disposals of minority interests	5b	**4,792**	–
Proceeds from borrowings	43	**3,465**	546
Repayment of borrowings	43	**(904)**	(928)
Dividends paid to minority shareholders	28	**(243)**	–
Net cash from/(used in) financing activities		**5,845**	(1,269)
Net decrease in cash and cash equivalents		**(5,364)**	(10,525)
Cash and cash equivalents – beginning of the year		**14,560**	25,695
Effects of exchange rate changes on the balance of cash held in foreign currencies		**(708)**	(610)
Cash and cash equivalents – end of the year		**8,488**	14,560

* The consolidated statement of cash flows has been restated for the comparative period as described in Note 2.

Notes to the consolidated financial statements

For the year ended December 31, 2022

1. General information

HeiQ Plc (the Company) is a company limited by shares incorporated and registered in the United Kingdom. Its ultimate controlling party is HeiQ Plc. The address of the Company's registered office is 5th Floor, 15 Whitehall, London, SW1A 2DD.

The principal activities of the Company and its subsidiaries (the Group) and the nature of the Group's operations are set out in Note 6.

These financial statements are presented in United States Dollars (US$) which is the presentation currency of the Group, and all values are rounded to the nearest thousand dollars except where otherwise indicated. Foreign operations are included in accordance with the policies set out in Note 3.

2. Changes in accounting policies, prior period error correction and adoption of new and revised standards

Change in accounting policy

Following the acquisitions in 2021, the Group had different accounting policies for inventory in the subsidiaries and therefore aligned the methodology during the financial year 2022 closing process to apply solely a first-in-first-out basis. The Group has assessed the impact on the valuation: the majority of inventory is valued on an individual basis and the impact is limited to functional consumer goods. It was therefore concluded that there was no material impact from the change in policy. See Note 3s for a description of the accounting policy.

Prior period error: Overstatement of lease assets and liabilities and reclassifications

During the compilation of the financial statements for the year ended December 31, 2022, the Group corrected an overstatement of right-of-use assets and lease liabilities assumed in the acquisition of HeiQ Chrisal N.V. It was determined that property capitalized as a right-of-use asset was owned by HeiQ Chrisal N.V. rather than leased – and the corresponding liability was that of a loan rather than a lease in nature. The loan amount payable was reported by Chrisal as short-term payables, and the assets were recognized as property, plant and equipment. In addition, at Group level, the same contracts were also recognized as right-of-use asset and lease liabilities.

Further, certain liabilities arising from customer contracts were incorrectly classified as deferred revenue rather than accrued liabilities and certain other payables are reclassed to short- and long-term borrowings.

The following table summarizes the impact of the prior period error on the financial statements of the Group.

Consolidated statement of profit or loss	Year ended December 31, 2021 US$'000
Selling and general administrative expenses	16
Finance costs	(27)
Decrease in profit for the financial year	**(11)**
Consolidated statement of financial position	
Right-of-use assets	(1,105)
Trade and other payables	1,088
Accrued liabilities	(770)
Deferred revenue	770
Short-term borrowings	(153)
Long-term borrowings	(935)
Lease liabilities (current)	149
Lease liabilities (non-current)	967
Decrease in net assets and equity	**(11)**

2. Changes in accounting policies, prior period error correction and adoption of new and revised standards continued

Prior period error: PPA Chrisal: Accounting for 51% of intangible assets acquired instead of 100%

During the purchase price allocation of the Chrisal acquisition, the Group identified and accounted for brand and customer relationship as well as technologies. The Group correctly valued the intangible assets at 51% in the purchase price allocation. However, the Group also consolidated the intangible assets at 51% when it should have accounted for them at 100% with the difference leading to an increase in non-controlling interests. The correction of the error leads to an increase in intangible assets and a higher amortization charge for the reporting period 2021.

The following table summarizes the impact of the prior period error on the financial statements of the Group.

Consolidated statement of profit or loss	Year ended December 31, 2021 US$'000
Selling and general administrative expenses	(218)
Income tax	55
Decrease in profit for the financial year	**(163)**
Consolidated statement of financial position	
Intangible assets	1,759
Deferred tax liability	(440)
Increase in net assets	**1,319**
Non-controlling interests	(1,483)
Decrease in shareholders' equity	**(163)**

Prior period error: Correcting revenue recognition of take-or-pay contracts

A further restatement concerns two significant take-or-pay contracts which have minimum guaranteed pricing irrespective of amounts delivered to the customer. Following a renegotiation with one customer post year-end, the company has reviewed its historic accounting for this contract. The conclusion of this review is that amounts recognized as revenue in 2021 and accounts receivable as at December 31, 2020 and 2021 were overstated as the criteria for revenue recognition under IFRS 15 had not been met. There are also associated impacts on costs of sales, accrued liabilities and tax.

As a further consequence, the accounting policy has been amended. Revenue from take-or-pay contracts is recognized only upon shipment of the products. See updated accounting policy and additional background on take-or-pay contracts in note 31. This has led to a restatement for 2021 in relation to a second take-or-pay contract.

The following table summarizes the impact of the prior period error on the financial statements of the Group. The impact of the prior period error on basic earnings per share is presented in Note 17.

Consolidated statement of profit or loss	Year ended December 31, 2021 US$'000
Revenue	(2,455)
Cost of sales	876
Selling and general administrative expenses	19
Income tax	174
Decrease in profit for the financial year	(1,386)
Consolidated statement of financial position	
Trade receivables	(37)
Other receivables and prepayments	(2,399)
Deferred tax asset	174
Accrued liabilities	876
Decrease in net assets and equity	(1,386)

2. Changes in accounting policies, prior period error correction and adoption of new and revised standards continued

Prior period error: Goodwill impairment and currency translation Chrisal CGU and RAS CGU

In course of the preparation of the 2022 financial statements, the Group identified a goodwill impairment in relation to three CGUs (Chrisal, RAS, Life). It was found that a portion of the goodwill impairment should have already been identified during the preparation of the 2021 financials, if all available information at the point of publishing the annual report 2021 had been taken into consideration. Consequently, a retrospective review of the 2021 goodwill impairment tests was performed and the underlying framework for modelling valuation assumptions was corrected. It was concluded that a portion of the identified impairment amounting to US$2.3 million is to be allocated to the 2021 financial statements whereas US$1.3 million of the impairment charge relates to the Chrisal CGU and US$1.0 million relates to the RAS CGU. No correction to the 2021 impairment test was identified for Life CGU.

IAS 21 – *The Effects of Changes in Foreign Exchange Rates* requires that intangible assets including goodwill arising on the acquisition shall be treated as assets of the foreign operation. Chrisal CGU and RAS CGU both have a functional currency which is different to the presentation currency of the Group. Consequently, these intangible assets should be translated from the functional currency of the CGU, Euro, to the presentation currency US$. The company recalculated the US$ balances with the closing rate present as at December 31, 2021. This led to a decrease of the intangible asset balance as well as a charge to other comprehensive loss of US$888,000.

See Note 18 for further details.

Consolidated statement of profit or loss	Year ended December 31, 2021 US$'000
Impairment loss on intangible assets	(2,310)
Decrease in profit for the financial year	**(2,310)**
Consolidated statement of financial position	
Intangible assets	(3,198)
Other reserves	888
Decrease in net assets and equity	**(2,310)**

Prior period error: foreign currency risk note

The amounts in Note 42d foreign currency risk have been restated as at December 31, 2021, as they contained intercompany balances, related to long-term loans that form part of net investments in foreign operations. Such balances are eliminated at Group level while foreign currency differences that arise between the entities' functional currencies only affect other comprehensive income. The error has no impact on the consolidated financial statements.

Impact of error corrections on the Group's consolidated statement of financial position

The effect of error corrections on the financial year ended December 31, 2021 and the balance carried forward from December 31, 2020 is shown in the following tables:

2. Changes in accounting policies, prior period error correction and adoption of new and revised standards continued

Consolidated statement of financial position

December 31, 2020 US$'000	As presented	Restatement revenue recognition	As Restated
Assets			
Deferred tax asset	826	462	1,288
Trade receivables	13,437	(3,357)	10,080
Total Assets	**69,608**	**(2,895)**	**66,713**
Capital and reserves			
Retained deficit	(8,499)	(1,849)	(10,348)
Total Equity	**49,609**	**(1,849)**	**47,760**
Liabilities			
Accrued liabilities	3,214	(1,046)	2,168
Total Liabilities	**19,999**	**(1,046)**	**18,953**

Consolidated statement of financial position

December 31, 2021 US$'000	As presented	Restatement Leasing	Restatement revenue recognition	Restatement PPA Chrisal	Restatement Goodwill	As Restated
Assets						
Intangible assets	32,212	–	–	1,759	(3,198)	30,773
Right-of-use assets	9,079	(1,105)	–	–	–	7,974
Deferred tax assets	701	–	636	–	–	1,337
Trade receivables	18,050	–	(3,394)	–	–	14,656
Other receivables and prepayments	6,275	–	(2,399)	–	–	3,876
Total Assets	**101,845**	**(1,105)**	**(5,157)**	**1,759**	**(3,198)**	**94,144**
Capital and reserves						
Retained deficit	(5,823)	6	(3,235)	(164)	(2,310)	(11,526)
Other reserves	(126,307)	–	–	–	(888)	(127,195)
Non-controlling interests	1,053	5	–	1,483	–	2,541
Total Equity	**64,637**	**11**	**(3,235)**	**1,319**	**(3,198)**	**59,535**
Liabilities						
Leases (non-current)	8,176	(967)	–	–	–	7,209
Long-term borrowings	670	935	–	–	–	1,605
Deferred tax liability	1,894	–	–	440	–	2,333
Trade and other payables	9,359	(1,088)	–	–	–	8,271
Accrued liabilities	4,538	770	(1,922)	–	–	3,386
Deferred revenue	1,774	(770)	–	–	–	1,004
Short-term borrowings	1,004	153	–	–	–	1,157
Leases (current)	1,054	(149)	–	–	–	905
Total Liabilities	**37,208**	**(1,116)**	**(1,922)**	**440**	**–**	**34,609**

2. Changes in accounting policies, prior period error correction and adoption of new and revised standards continued

Impact of adjustment on the Group's statement of profit and loss and other comprehensive income

	December 31, 2021					
US$'000	As presented	Restatement Leasing	Restatement revenue recognition	Restatement PPA Chrisal	Restatement Goodwill impairment	As Restated
Net result for the year						
Revenue	57,874	–	(2,455)	–	–	55,419
Cost of sales	(30,898)	–	876	–	–	(30,022)
Selling and general administration expense	(24,465)	(16)	19	(218)	–	(24,680)
Impairment losses on intangible assets	(144)	–	–	–	(2,310)	(2,454)
Finance costs	(597)	27	–	–	–	(569)
Income tax	(212)	–	174	55	–	(16)
Income (loss) after taxation	**2,474**	**11**	**(1,386)**	**(163)**	**(2,310)**	**(1,373)**
Income (loss) after taxation attributable to HeiQ Stockholders	2,676	6	(1,386)	(163)	(2,310)	(1,177)
Income after taxation attributable to non-controlling interest	(202)	5	–	–	–	(196)
Income (loss) after taxation	**2,474**	**11**	**(1,386)**	**(163)**	**(2,310)**	**(1,373)**

Impact of adjustment on earnings per share

	December 31, 2021					
US$'000	As presented	Restatement Leasing	Restatement revenue recognition	Restatement PPA Chrisal	Restatement Goodwill impairment	As Restated
Basic earnings (loss) per share	2.07	0.01	(1.08)	(0.13)	(1.78)	(0.91)

New standards, interpretations and amendments effective for the current period

Adopted

The following new standards and amendments were effective for the first time in these financial statements but did not have a material effect on the Group:

- Annual Improvements to IFRS Standards 2018-2020 Cycle
- Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)
- Property, Plant and Equipment – Proceeds before Intended Use (Amendments to IAS 16)
- Conceptual Framework for Financial Reporting (Amendments to IFRS 3)

New standards, interpretations and amendments not yet effective for the current period

There are a number of standards, amendments to standards, and interpretations which have been issued by the IASB that are effective in future accounting periods that the Group has decided not to adopt early. The most significant of these are as follows:

Effective for annual periods beginning on or after January 1, 2023:

- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2);
- Classification of Liabilities as Current or Non-current (Amendments to IAS 1);
- Definition of Accounting Estimates (Amendments to IAS 8); and
- Deferred Tax Related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12).

Management anticipates that these new standards, interpretations and amendments will be adopted in the financial statements as and when they are applicable and adoption of these new standards, interpretations and amendments, will be reviewed for their impact on the financial statements prior to their initial application.

The Directors do not expect these new accounting standards and amendments will have a material impact on the Group's financial statements.

3. Significant accounting policies

a. Basis of preparation

The Consolidated Financial Statements have been prepared in accordance with UK adopted international financial reporting standards.

The Consolidated Financial Statements have been prepared under the historical cost convention except for certain financial and equity instruments that have been measured at fair value. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

The preparation of Financial Statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting policies. The areas involving a higher degree of judgment and complexity, or areas where assumptions and estimates are significant to the Consolidated Financial Statements are disclosed in Note 4.

b. Going Concern

The Consolidated Financial Statements have been prepared on a going concern basis, which contemplates the continuity of normal business activity and the realization of the assets and the settlement of liabilities in the normal course of business.

The Group's business activities, together with the factors likely to affect its future development, performance and position are set out in the Strategic Report on pages 2 to 43. The financial position of the Group, its cash flows, liquidity position and borrowing facilities are described in the CFO Review on pages 30 to 35 and in Note 31 to the financial statements. In addition, Notes 41 and 42 to the financial statements include the Group's objectives, policies and processes for managing its capital; its financial risk management objectives; details of its financial instruments; and its exposures to credit risk and liquidity risk.

To manage its cash balance, the Group has access to credit facilities totalling CHF9.0 million (approximately US$9.8 million as of September 30, 2023). The credit facilities are in place with two different banks but with materially the same conditions. The facilities are not limited in time, can be terminated by either party at any time and allow overdrafts and fixed cash advances with a duration of up to twelve months. In case one or the other party terminates the agreement, fixed cash advances become due upon their defined maturity date. The facilities do not contain financial covenants, but they do require the delivery of certain financial and operational information within a defined timeframe after the balance sheet date. As the publication of audited accounts for the year 2022 was delayed, the Company was not able to submit these accounts within the contractually defined timeframe but has received extensions to do so from both banks until October 31, 2023.

As of September 30, 2023, the Group has drawn CHF6.3 million of the facilities (CHF2.4 million as at December 31, 2022) as follows:

Term/Maturity date	Amount
November 27, 2023	CHF4.5 million
June 17, 2024	CHF0.8 million
September 30, 2024	CHF1.0 million

The Group's forecasts and projections for the next 12 months reflect the very challenging trading environment and show that the Group should be able to operate within the level of its current facility for at least 12 months from the date of signature of these financial statements if the facility drawdowns remain available. While the facilities are not committed, the Board has not received any indication from financing partners that the facilities are at risk of being terminated. Furthermore, the Board is in discussions with financial institutions to replace the currently uncommitted credit facilities by committed, long-term facilities, but the outcome of these discussions remains uncertain.

Nevertheless, the Board acknowledges the uncommitted status of the facilities which could be terminated without notice during the forecast period requiring the refinancing of debts as per above maturity date indicates that a material uncertainty exists that may cast significant doubt on the Group's and Parent Company's ability to continue as a going concern, and therefore the Group may not be able to realize its assets and discharge its liabilities in the normal course of business.

After considering the forecasts, sensitivities, and mitigating actions available to management and having regard to the risks and uncertainties to which the Group is exposed (including the material uncertainty referred to above), the Group's directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future and operate within its credit facilities for the period 12 months from date of signature. Accordingly, the financial statements continue to be prepared at the going concern basis.

3. Significant accounting policies continued

c. Basis of consolidation

The Consolidated Financial Statements comprize the financial statements of the Company and its subsidiaries listed in Note 6 "Subsidiaries" to the Consolidated Financial Statements.

A subsidiary is defined as an entity over which the Company has control. The Company controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date that control ceases.

Intra-group transactions, balances and unrealized gains on transactions between Group companies are eliminated; unrealized losses are also eliminated unless cost cannot be recovered. Where necessary, adjustments are made to the financial statements of subsidiaries to ensure consistency of accounting policies with those of the Group.

Non-controlling interests in subsidiaries are identified separately from the Group's equity therein. Those interests of non-controlling shareholders that are present ownership interests entitling their holders to a proportionate share of net assets upon liquidation may initially be measured at fair value or at the non-controlling interests' proportionate share of the fair value of the acquiree's identifiable net assets. The choice of measurement is made on an acquisition-by-acquisition basis. Other non-controlling interests are initially measured at fair value. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity.

The total comprehensive income of non-wholly owned subsidiaries is attributed to owners of the parent and to the non-controlling interests in proportion to their relative ownership interests.

The preparation of the Consolidated Financial Statements in compliance with UK adopted international accounting standards requires the Directors to exercise judgment in applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the Consolidated Financial Statements are disclosed in Note 4 "Significant judgments, estimates and assumptions" to the Consolidated Financial Statements.

d. Business combinations

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interest issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognized in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognized at their fair value at the acquisition date, except that:

- Deferred tax assets or liabilities and assets or liabilities related to employee benefit arrangements are recognized and measured in accordance with IAS 12 Income Taxes and IAS 19 Employee Benefits respectively;
- Liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 at the acquisition date (see below);
- Assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations are measured in accordance with that Standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognized immediately in profit or loss as a bargain purchase gain.

When the consideration transferred by the Group in a business combination includes a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

3. Significant accounting policies continued

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Other contingent consideration is remeasured to fair value at subsequent reporting dates with changes in fair value recognized in profit or loss.

When a business combination is achieved in stages, the Group's previously held interests (including joint operations) in the acquired entity are remeasured to its acquisition-date fair value and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete.

Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognized as of that date.

e. Foreign currency transactions and translation

The individual entities' functional currencies are listed below:

Subsidiary:	Functional currency
HeiQ Plc, United Kingdom	GBP
HeiQ Materials AG, Switzerland	CHF
HeiQ ChemTex Inc., United States of America	USD
HeiQ Pty Ltd, Australia	AUD
HeiQ GrapheneX AG, Switzerland	CHF
HeiQ Company Limited, Taiwan	TWD
HX Company Limited, Taiwan	TWD
HeiQ Medica S.L., Spain	EUR
HeiQ Iberia Unipessoal Lda, Portugal	EUR
HeiQ Chrisal N.V., Belgium	EUR
HeiQ RAS AG, Germany	EUR
HeiQ Regulatory GmbH, Germany	EUR
HeiQ (China) Material Tech LTD, China	CNY
Life Material Technologies Limited, Hong Kong	USD
Life Natural Limited, Hong Kong	USD
Life Materials Latam Ltda, Brazil	BRL
LMT Holding Limited, Thailand	THB
Life Material Technologies Limited, Thailand	THB
HeiQ AeoniQ GmbH, Austria	EUR
ChemTex Laboratories Inc., United States of America	USD

On a single entity level, transactions in foreign currencies are translated into the functional currency at the rate of exchange on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate ruling at the reporting date. The resulting gain or loss is reflected in the "consolidated statement of profit and loss and other comprehensive income" within operating income or operating expense, if the balance sheet account is of operating nature – e.g. trade and other receivables/ payables and within either "Finance income" or "Finance costs", if the balance sheet account is of non-operating nature – e.g. cash and cash equivalents, loans receivable, payable.

Single entities with functional currencies other than US$ are translated into US$ as part of the consolidation where assets and liabilities are translated at closing rate for the year-ended, and profit and loss items are translated at an average rate for the year. Equity transactions are translated at a historic rate. The residual value flows into the currency translation reserve.

3. Significant accounting policies continued

The results and financial position of all Group entities that have a functional currency different from the presentation currency are translated into US$, the presentation currency, as follows:
1. assets and liabilities are translated at the closing rate at the date of the "Statement of Financial Position";
2. income and expenses are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the dates of the transactions); and
3. all resulting exchange differences are recognized in other comprehensive income.

On consolidation, the Group recognizes in "other comprehensive income" the exchange differences arising from the translation of the net investment in foreign entities, and of monetary items receivable from foreign subsidiaries for which settlement is neither planned nor likely to occur in the foreseeable future.

f. Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses, if any. The cost of an item of property, plant and equipment initially recognized includes its purchase price and any cost that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by the Group.

Property, plant and equipment are generally depreciated on a straight-line basis over their estimated useful lives:

Machinery and equipment	5–15 years
Motor vehicles	4–5 years
Computers and related software	3–5 years
Furniture and fixtures	5–10 years
Buildings	10–20 years

Freehold land is not depreciated.

The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

Property, plant and equipment held under leases are depreciated over the shorter of the lease term and estimated useful life.

g. Intangible assets

All intangible assets, except goodwill, are stated at cost less accumulated amortization and any accumulated impairment losses.

Goodwill

Goodwill represents the amount by which the fair value of the cost of a business combination exceeds the fair value of the net assets acquired. Goodwill is not amortized and is stated at cost less any accumulated impairment losses.

The recoverable amount of goodwill is tested for impairment annually or when events or changes in circumstance indicate that it might be impaired. Impairment charges are deducted from the carrying value and recognized immediately in the income statement. For the purpose of impairment testing, goodwill is allocated to each of the Group's cash generating units expected to benefit from the synergies of the combination. If the recoverable amount of the cash generating unit is less than the carrying amount of the unit, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognized for goodwill is not reversed in a subsequent period.

Intangible assets acquired in a business combination

Net assets acquired as part of a business combination includes an assessment of the fair value of separately identifiable acquisition-related intangible assets, in addition to other assets, liabilities and contingent liabilities purchased.

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortization and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

Acquisition-related intangible assets are amortized on a straight-line basis over their useful lives which are individually assessed.

3. Significant accounting policies continued

The estimated useful lives are as follows:

Brand names	10 years
Customer relations	5 years
Technologies	10 years
Other intangible assets	5–10 years

Internally developed assets

Internally generated assets represent expenditure incurred on research and development projects. Recognition follows the following principles:

Research expenditure is recognized as an expense when it is incurred. Development expenditure is recognized as an expense except that costs incurred on development projects are capitalized as long-term assets to the extent that such expenditure is expected to generate future economic benefits. Development expenditure is capitalized if, and only if an entity can demonstrate all of the following:

- its ability to measure reliably the expenditure attributable to the asset under development;
- the product or process is technically and commercially feasible;
- its future economic benefits are probable;
- its ability to use or sell the developed asset;
- Its intention to complete and use or sell the developed asset;
- the availability of adequate technical, financial and other resources to complete the asset under development.

Capitalized development expenditure is measured at cost less accumulated amortization and impairment losses, if any. Certain internal salary costs are included where the above criteria are met. These internal costs are capitalized when they are incurred in respect of products developed for sale or assets developed to be used.

In the event that it is no longer probable that the expected future economic benefits will be recovered, the development expenditure is written down to its recoverable amount. Development expenditure initially recognized as an expense is not recognized as assets in subsequent periods.

Capitalized development expenditure in relation to projects that are still in development phase are capitalized as asset under construction until they are ready for sale or use. These assets are tested annually for impairment. Internally developed assets are amortized on a straight-line method over a period of five to ten years when the asset is ready for sale or use.

The estimated useful life is 5-10 years.

Other intangible assets

Other intangible assets include purchased rights, licenses, patent costs, concessions, website designs and domains and trademarks. They are measured initially at purchase cost and are amortized on a straight-line basis over their estimated useful lives. The estimated useful life is 5-10 years.

Derecognition intangible assets

An intangible asset is derecognized on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognized in profit or loss when the asset is derecognized.

h. Impairment of financial assets

The expected credit loss model defined in IFRS 9 “Financial Instruments” requires the Group to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition of the financial assets. The credit event does not have to occur before credit losses are recognized. IFRS 9 “Financial Instruments” allows for a simplified approach for measuring the loss allowance at an amount equal to lifetime expected credit losses for trade receivables and contract assets.

The Group has three types of financial assets subject to the expected credit loss model: trade receivables contract assets, other receivables.

For trade receivables and contract assets, the company uses a simplified provision matrix to calculate expected credit loss: The expected loss rates are based on the Group’s historical credit losses. The historical loss rates are then adjusted for current and forward-looking information on macroeconomic factors affecting the Group’s customers.

For other receivables, the company makes use of the low credit risk exemption.

3. Significant accounting policies continued

Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument at the reporting date with the risk of a default occurring on the financial instrument at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort. Forward looking information considered includes the future prospects of the industries in which the Group's debtors operate, obtained from economic expert reports, financial analysts, governmental bodies, relevant think-tanks and other similar organizations, as well as consideration of various external sources of actual and forecast economic information that relate to the Group's core operations.

- In particular, the following information is taken into account when assessing whether credit risk has increased significantly since initial recognition:
- Significant deterioration in external market indicators of credit risk for a particular financial instrument, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor, or the length of time or the extent to which the fair value of a financial asset has been less than its amortized cost.
- Existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations.
- An actual or expected significant deterioration in the operating results of the debtor.
- Significant increases in credit risk on other financial instruments of the same debtor.
- An actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 180 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Group assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date. A financial instrument is determined to have low credit risk if:

- The financial instrument has a low risk of default.
- The debtor has a strong capacity to meet its contractual cash flow obligations in the near term.
- Adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfill its contractual cash flow obligations.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

Definition of default

The Group considers the following as constituting an event of default for internal credit risk management purposes as historical experience indicates that financial assets that meet either of the following criteria are generally not recoverable:

- When there is a breach of financial covenants by the debtor.
- Information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collateral held by the Group).

Irrespective of the above analysis, the Group considers that default has occurred when a financial asset is more than 360 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

Write-off policy

The Group writes off a financial asset when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the debtor has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over two years past due unless the Group has reasonable support to assume recoverability, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognized in profit or loss.

3. Significant accounting policies continued

i. Impairment of non-financial assets

At each reporting date, the Directors assess whether indications exist that an asset may be impaired. If indications do exist, or when annual impairment testing for an asset is required, the Directors estimate the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's fair value less costs to sell and its value-in-use, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or cash-generating unit exceeds its recoverable amount, the Directors consider the asset impaired and write the subject asset down to its recoverable amount. In assessing value-in-use, the Directors discount the estimated future cash flows to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, the Directors consider recent market transactions, if available. If no such transactions can be identified, the Directors utilize an appropriate valuation model.

When applicable, the Group recognizes impairment losses of continuing operations in the "statement of profit and loss and other comprehensive income" in those expense categories consistent with the function of the impaired asset.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss to the extent that it eliminates the impairment loss which has been recognized for the asset in prior years. Any increase in excess of this amount is treated as a revaluation increase.

j. Leases

The determination of whether an arrangement is, or contains, a lease is based on the substance of the arrangement at inception date: whether fulfillment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset.

Identifying leases

Lessee position:
The Group accounts for a contract, or a portion of a contract, as a lease when it conveys the right to use an asset for a period of time in exchange for consideration. Leases are those contracts that satisfy the following criteria:

- there is an identified asset;
- the Group obtains substantially all the economic benefits from use of the asset; and
- the Group has the right to direct use of the asset.

In determining whether the Group obtains substantially all the economic benefits that arise from use of the asset, the Group considers only the economic benefits that arise from use of the asset, not those incidental to legal ownership or other potential benefits.

In determining whether the Group has the right to direct use of the asset, the Directors consider whether the Group directs how and for what purpose the asset is used throughout the period of use. If there are no significant decisions to be made because they are pre-determined due to the nature of the asset, the Directors consider whether the Group was involved in the design of the asset in a way that predetermines how and for what purpose the asset will be used throughout the period of use. If the contract or portion of a contract does not satisfy these criteria, the Group applies other applicable IFRSs rather than IFRS 16 "Leases".

Lease liabilities are measured at the present value of the contractual payments due to the lessor over the lease term, with the discount rate determined by reference to the rate inherent in the lease unless (as is typically the case) this is not readily determinable, in which case the Group's incremental borrowing rate on commencement of the lease is used, which the Directors have assessed to be between 1.75% and 5%, depending on the nature of the asset and location.

Subsequent to initial measurement lease liabilities increase as a result of interest charged at a constant rate on the balance outstanding and are reduced for lease payments made. Right-of-use assets are amortized on a straight-line basis over the remaining term of the lease or over the remaining economic life of the asset if, rarely, this is judged to be shorter than the lease term.

3. Significant accounting policies continued

When the Group revises its estimate of the term of any lease (because, for example, it re-assesses the probability of a lessee extension or termination option being exercised), it adjusts the carrying amount of the lease liability to reflect the payments to make over the revised term, which are discounted at the same discount rate that applied on lease commencement. The carrying value of lease liabilities is similarly revised when the variable element of future lease payments dependent on a rate or index is revised. In both cases an equivalent adjustment is made to the carrying value of the right-of-use asset, with the revised carrying amount being amortized over the remaining (revised) lease term.

Right-of-use assets

A right-of-use asset is recognized at the commencement date of a lease. The right-of-use asset is measured at cost, which comprzes the initial amount of the lease liability, adjusted for, as applicable, any lease payments made at or before the commencement date net of any lease incentives received, any initial direct costs incurred, and an estimate of costs expected to be incurred for dismantling and removing the underlying asset, and restoring the site or asset.

Right-of-use assets are depreciated on a straight-line basis over the unexpired period of the lease or the estimated useful life of the asset, whichever is the shorter. Right-of-use assets are subject to impairment or adjusted for any re-measurement of lease liabilities.

The Group has elected not to recognize a right-of-use asset and corresponding lease liability for short-term leases with terms of 12 months or less and leases of low-value assets. Lease payments on these assets are expensed to profit or loss as incurred.

k. Taxation

The income tax expense represents the sum of the tax currently payable and deferred tax.

Current and deferred tax are recognized in profit or loss, except when they relate to items that are recognized in other comprehensive income or directly in equity, in which case the current and deferred tax are also recognized in other comprehensive income or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

Income taxation

Current income tax assets and liabilities are measured at the amount to be recovered from, or paid to, the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted at the reporting date in the jurisdictions where the Group operates and generates taxable income.

Deferred taxation

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the Consolidated Financial Statements. Deferred tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the reporting date and expected to apply when the related deferred tax is realized or the deferred liability is settled.

Deferred tax assets are recognized to the extent that it is probable that the future taxable profit will be available against which the temporary differences can be utilized.

l. Revenue from contracts with customers

The Group's revenue represents the fair value of the consideration received or receivable for the rendering of services, licenses and similar fees as well as for the sale of functional products in different forms (mainly ingredients, materials and consumer goods), net of value added tax and other similar sales-based taxes, rebates and discounts after eliminating intercompany sales.

Revenue from contracts with customers is recognized once the performance obligation has been fulfilled. If the Group fulfills its performance obligations to the customer, revenues recognized are capitalized as contract assets until the Group invoices the customers. In contrast, if customers pay in advance for the services, a contract liability is recognized and is released at point of revenue recognition.

The Group has the following major revenue streams:

Sale of goods

The Group sells functional ingredients, materials or consumer goods. Revenue from the sale of goods to customers is generally recognized at a point in time, once control over the goods is passed to customers.

3. Significant accounting policies continued

Research and development services

HeiQ provides research and development services to customers in exchange for a fee. Revenue is generally recognized at the point in time of completion of the project, for example, with delivery of proof-of-concept to the customer.

Consulting services for research and development projects

HeiQ provides consulting services for customers regarding research and development projects including grant acquisition services, industry cluster services and management services. The revenue for these services is recognized over time based on completion of the project. Any amounts invoiced for stages not completed, are recognized as deferred revenue.

Take-or-pay arrangements

Certain customers have agreed, under a "take or pay" contract, to purchase a specified minimum quantity of particular products over a specified period of time, usually in exchange for a specified exclusivity during the same period. However, the customer must pay for the full quantity stated in the contract, irrespective of whether the customer takes delivery of the minimum quantity to which they are committed. Upon payment of the full amount, the contract allows customers to defer their unexercised rights and to consume the remaining units within a twelve-month period, although there is no compulsion to do so. The customers are billed for each shipment of products and revenue is recognized at the point in time control over the goods is passed to the customer. At the end of the contractual period, the customer is billed for the amounts not ordered. Revenue recognition for these shortfall items is deferred until the customer consumes the units, or, in case of expiry of the rights, typically twelve months after payment by the customer.

Exclusivity fees

HeiQ grants exclusivity to customers for certain products in certain regions. The contracts restrict HeiQ from selling specific products to competitors for a limited time. The customers pay a fee for exclusivity which increases the price of the goods supplied by HeiQ. In cases where the obligation to grant exclusivity can be valued separately from other obligations in the contract, the exclusivity portion is accounted for over time according to the contractual definition of the exclusivity period.

m. Share-based payments

All of the Group's share-based awards are equity settled. Equity-settled share-based payments to employees are measured at the fair value of the equity instruments at the grant date. Equity-settled share-based payments to non-employees are measured at the fair value of services received, or if this cannot be measured, at the fair value of the equity instruments granted at the date that the Group obtains the goods or counterparty renders the service. The fair value of such shares issued has been estimated by reference to the cash consideration received for shares issued or material third party transactions at or close to the dates for such non-cash issues.

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Directors' estimate of equity instruments that will eventually vest, with a corresponding increase in equity. Where the conditions are non-vesting, the expense and equity reserve arising from share-based payment transactions is recognized in full immediately on grant.

At the end of each reporting period, the Directors revise their estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to other reserves.

n. Employee benefits

Short-term benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognized for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

Long-term benefits

Defined benefit plans

The Group operates a defined benefit pension plan in Switzerland, which requires contributions to be made to a separately administered fund. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method with actuarial valuations being carried out at the end of each annual reporting period.

3. Significant accounting policies continued

Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognized immediately in the statement of financial position with a corresponding debit or credit to other reserve through "Other Comprehensive Income" in the period in which they occur. Re-measurements are not reclassified to profit or loss in subsequent periods.

Past-service costs are recognized in profit or loss on the earlier of:
- the date of the plan amendment or curtailment; and
- the date that the Group recognizes related restructuring costs, or termination benefits, if earlier.

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. The Group recognizes the following changes in the net defined benefit obligation under "cost of sales", "administration expenses" and "selling and distribution expenses" in the consolidated statement of profit or loss (by function):
- service costs comprising current service costs, past-service costs, gains and losses on curtailments and non-routine settlements; and
- net interest expense or income.

Defined contribution plans
The income statement expense for the defined contribution pension plans operated represents the contributions payable for the year.

o. Financial instruments
Financial assets and financial liabilities are recognized in the Group's statement of financial position when the Group becomes a party to the contractual provisions of the instrument.

Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognized immediately in profit or loss.

p. Finance income and expenses
Finance expenses comprize interest payable, lease expenses recognized in profit or loss using the effective interest method, unwinding of the discount on provisions, and net foreign exchange losses that are recognized in the income statement.

Finance income comprizes interest receivable on cash deposits and net foreign exchange gains.

Interest income and interest payable is recognized in profit or loss as it accrues, using the effective interest method.

Foreign currency gains and losses are reported on a net basis.

q. Cash and cash equivalents
For the purpose of presentation in the consolidated statement of cash flows, cash and cash equivalents include cash on hand, deposits held at call with financial institutions, other short-term highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts.

r. Trade and other receivables
Trade receivables are recognized initially at transaction price and subsequently measured at amortized cost using the effective interest method, less provision for impairment.

s. Inventories
Inventories are stated at the lower of cost and net realizable value. Cost is based on the first-in-first-out principle and includes expenditure incurred in acquiring the inventories and other costs in bringing them to their existing location and condition.

3. Significant accounting policies continued

t. Provisions

A provision is recognized when the Group has a present obligation, legal or constructive, as a result of a past event and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of economic resources will be required to settle the obligation, the provision is reversed.

Where the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognized as an interest expense.

u. Contingent liabilities

Contingent liabilities are possible obligations whose existence depends on the outcome of uncertain future events or present obligations where the outflow of resources is uncertain or cannot be measured reliably. Contingent liabilities are not recognized in the Consolidated Financial Statements but are disclosed unless they are remote.

4. Critical accounting judgments and key sources of estimation uncertainty

In applying the Group's accounting policies, which are described in note 3, the directors are required to make judgments (other than those involving estimations) that have a significant impact on the amounts recognized and to make estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical accounting judgments

The following are the critical judgments, apart from those involving estimations (which are presented separately below), that the directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognized in financial statements.

Accounting for take-or-pay contracts

Following a change in accounting policy in connection with an identified prior period error (see Note 2, page 85), revenue recognition for shortfall items is deferred until the customer consumes the units, or typically twelve months after payment by the customer in case of expiry of the rights (Note 3l). Applying this judgement results in recognition of revenues and pre-tax profit at a later point in time. Revenue and pre-tax profits would have been US$622,000 higher for the reporting year if such revenues were not deferred in 2022.

Allowance for inventory obsolescence

The slowdown of sales in 2022 led to an increase in unsold finished goods and unused raw materials. The Group applied judgment in calculating the allowance for obsolete inventory. For slow-moving items, the Group compared quantities on hand with budgeted sales quantities. The sales projections are inherently uncertain due to the nature of the business and fluctuating market conditions. The inventory allowance calculated as at December 31, 2022 is US$4,912,000 (2021: US$17,000) as presented in Note 22.

Key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the reporting period that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

Goodwill impairment testing

Following the assessment of the recoverable amount of goodwill allocated to the CGU "RAS" (allocated goodwill: US$7.2 million), the directors consider the recoverable amount of goodwill allocated to CGU "RAS" to be most sensitive to the achievement of forecasts in 2023 comprising forecasts of revenue, staff costs and operating expenses based on current and anticipated market conditions. Whilst the Group can manage most of RAS CGU's costs, the revenue projections are inherently uncertain due to the nature of the business and fluctuating market conditions. The market for RAS CGU has seen a slowdown in the second half of 2022 due to a decline in customer demand. It is possible that underperformance to estimated revenues as considered in the impairment test may occur in 2023.

The sensitivity analysis for a reasonably possible change in assumptions in respect of the recoverable amount of the CGU "RAS" goodwill is presented in Note 18.

5. Business combinations

Business combinations in 2022

a. Acquisition of non-controlling interest in Chrisal N.V.

On December 14, 2022, HeiQ increased its interest in HeiQ Chrisal N.V. from 51% to 71% after some sellers exercised their put options. HeiQ paid €2.9 million (approximately US$3.0 million) for the additional 20% shareholding to the vendors through the issue of 3,348,164 new ordinary shares in the Company. The 20% share was valued at US$0.6 million. The transaction resulted in a US$0.6 million reduction of non-controlling interests and a US$2.4 million charge to retained earnings.

b. Transfer of shares in HeiQ AeoniQ GmbH to non-controlling interests

On February 11, 2022, HeiQ Materials AG reached an agreement with Hugo Boss AG to dispose of 2.5% of its shareholding in HeiQ AeoniQ GmbH and issued a call option. Under the call option, the Company granted Hugo Boss AG the contractual right to acquire from the Company a further 5% shareholding in HeiQ AeoniQ GmbH for a call option exercise price of €10,000,000 (approximately US$10,657,000). The shares and call option were issued for US$4,791,000, the call option was recognized as a derivative liability, see Note 38.

Business combinations in 2021

c. Acquisition of Chrisal NV

On March 9, 2021, HeiQ Iberia Unipessoal Lda acquired 51% of the share capital and voting rights of Chrisal NV, a company incorporated in Belgium. Chrisal NV is a biotechnology company and a leader in innovative ingredients and consumer products that incorporate the benefits of probiotics and synbiotics. It has technology platforms with the purpose of creating healthy and sustainable microbial ecosystems. The application of its proprietary technology includes cosmetics, personal care, textiles, wound dressings, water purification, air treatment and cleaning products. The company has its office, manufacturing site and bottling facility in Lommel, Belgium.

The purchase consideration was payable partly in cash (€5,000,000, equivalent to approximately US$6,054,000) and partly by the issue of 1,101,928 new ordinary shares for €2,500,000 (US$2,982,000), equivalent to a total consideration of US$9,036,000.

The acquisition is part of the Group's strategy of becoming a global leader in materials innovation and allows access to the broader market of microbial surface management and a bio-based green complementary technology platform to its successful antimicrobials.

Goodwill of US$6,163,000 was recognized and is attributable to anticipated future profit from expansion opportunities and synergies of the business. The goodwill arising from the acquisition has been allocated to the Chrisal CGU (see definition in Note 18). Fair value adjustments have been recognized for property, plant and equipment and acquisition-related intangible assets which are in alignment with accounting policies of the Group. Transaction costs relating to the acquisition of US$46,000 have been charged to the Statement of profit and loss and other comprehensive Income in the period relating to the acquisition of Chrisal NV.

The sellers of Chrisal N.V. hold buyout options to sell their remaining shareholding to HeiQ. The options are exercisable every year from March 9 (anniversary of the closing date) until December 31 each year at a strike price defined in the respective shareholders' agreement. As of December 31, 2022, four out of five old shareholders have exercised their option (see above, Business combinations in 2022) and sold in total an additional interest of 20% in Chrisal N.V. to the Group. The remaining non-controlling shareholder has partially sold his interest and therefore the Group concludes that the option has lapsed as of December 31, 2022.

5. Business combinations continued

d. Acquisition of RAS AG

On April 29, 2021, the Company completed the acquisition of 100% of the share capital and voting rights of RAS AG, a company based in Regensburg, Germany. The acquisition was for an initial consideration of €5.1 million (approximately US$6.1 million), with €1.25 million (US$1.48 million) payable in cash and €3.85 million (US$4.66 million) through the issue of 1,701,821 new ordinary shares by the Company. An additional earn-out of €2.7 million (US$3.2 million) was satisfied through the issuance of 2,743,841 new ordinary shares in 2022 resulting in an overall consideration of €7.8 million (US$9.37 million).

RAS AG is a materials innovation company that drives the development of resource-efficient and sustainable products. RAS AG develops and manufactures highly functionalized materials for this purpose. This includes the manufacture of antimicrobial, hygiene-enhancing additives and durable antimicrobial coating systems which are sold worldwide under the trademark agpure®, and transparent electrically conductive and infrared reflective coatings sold under the ECOS®trademark. The acquisition is in line with HeiQ's strategic goal to gain market share in hygiene solutions by providing antimicrobial surface hygiene technologies to the healthcare and other sectors. This is building on the acquisition of Chrisal N.V. Belgium concluded earlier in the year, which gives HeiQ expanded access to the healthcare sector through probiotic and synbiotic cleaners.

Goodwill of US$7,234,000 was recognized and is attributable to anticipated future profit from expansion opportunities and synergies of the business. The goodwill arising from the acquisition has been allocated to the RAS CGU (see definition in Note 18). Fair value adjustments have been recognized for acquisition-related intangible assets which are in alignment with the accounting policies of the Group.

Transaction costs relating to the acquisition of US$50,000 have been charged to the Statement of profit and loss and other comprehensive income in the period relating to the acquisition of RAS AG.

HeiQ Regulatory GmbH, a joint-venture company previously accounted for under the equity method, became a wholly owned subsidiary on acquisition of RAS AG.

e. Acquisition of Life Material Technologies Limited

On June 15, 2021, the Company completed the acquisition of 100% of the share capital and voting rights of Life Material Technologies Limited, Hong Kong ("LIFE").

The acquisition was for an upfront consideration of US$6.45 million, with US$2.55 million payable in cash (the "Cash Consideration") and US$3.9 million to be satisfied through the issue of new ordinary shares by HeiQ (the "Share Consideration"). Additional earn-out consideration of US$2,038,000 was paid in cash (US$1,400,000) and through the issue of new ordinary shares (US$638,000) in 2022. A further US$614,000 working capital adjustment was paid in shares in 2022 resulting in an overall consideration of US$9.1 million. An additional US$762,000, which is not part of the consideration, was issued in shares and is expensed as remuneration over a five-year period.

The Share Consideration was settled on July 9, 2021 by the issue of 1,887,883 new ordinary shares ("Consideration Shares") to the sellers of LIFE, at a price of £1.496201 per share, which was the intraday volume-weighted average price (the "VWAP") of HeiQ shares on the London Stock Exchange in the last five trading days preceding the closing of the Acquisition.

LIFE is a materials technology company that has developed a strong portfolio of smart ingredients and formulations with applications in numerous industries. This includes the development and distribution of bio-based antimicrobial additives and treatments used by manufacturers of plastics, coatings, textiles, ceramics and paper, that inhibit or manage bacteria, fungi, algae, and other micro-organisms that come in contact with treated materials. LIFE has one of the broadest technology platforms in the industry, using inorganic, organic and bio-based botanical active substances.

Goodwill of US$5,202,000 was recognized and is attributable to anticipated future profit from expansion opportunities and synergies of the business. The goodwill arising from the acquisition has been allocated to the Life CGU (see definition in Note 18). Fair value adjustments have been recognized for acquisition-related intangible assets which are in alignment with the accounting policies of the Group.

Transaction costs relating to the acquisition of US$110,000 have been charged to the Statement of profit and loss and other comprehensive income in the period relating to the acquisition of LIFE.

5. Business combinations continued

f. Summary of acquisitions in 2021

The following table summarizes the consideration paid, the fair value of assets acquired, liabilities assumed, goodwill arising on acquisition and non-controlling interests at the acquisition date:

	Chrisal NV US$'000 (restated)	RAS AG US$'000	Life Material Technologies Limited US$'000	**Total US$'000 (restated)**
Consideration:				
Cash paid to shareholders	6,054	1,482	2,550	**10,086**
Shares issued to shareholders	2,983	4,656	3,900	**11,539**
Contingent consideration payable in cash	–	–	1,400	**1,400**
Contingent consideration payable in shares	–	3,232	638	**3,870**
Working capital adjustment payable in shares	–	–	614	**614**
Total Consideration payable	9,037	9,370	9,102	**27,509**
Fair value of net assets acquired:				
Property, plant and equipment	1,872	179	29	**2,080**
Intangible Assets	20	159	401	**580**
Other non-current assets	–	–	17	**17**
Inventory	1,277	411	570	**2,258**
Cash	1,773	291	73	**2,137**
Trade and other receivables	874	1,184	1,480	**3,538**
Trade and other payables	(1,426)	(611)	(460)	**(2,497)**
IAS 19 Pension liability	–	–	(92)	**(92)**
Borrowings	(1,582)	–	(210)	**(1,792)**
Income tax liability	(198)	(420)	(20)	**(638)**
Right of use assets (restated)	161	139	122	**422**
Lease liability (restated)	(161)	(139)	(122)	**(422)**
Intangible assets identified on acquisition:				
Customer Relationship	1,308	380	610	**2,298**
Brands	1,022	–	1,048	**2,070**
Technology-based assets	1,704	1,071	561	**3,336**
Deferred tax liability on intangible assets	(1,008)	(508)	(111)	**(1,627)**
Total net assets	5,636	2,136	3,896	**11,668**
Non-controlling interests	(2,762)	–	4	**(2,758)**
Goodwill	6,163	7,234	5,202	**18,599**
Total	9,037	9,370	9,102	**27,509**

5. Business combinations continued

g. Deferred consideration in relation to acquisitions

Deferred consideration includes earnout payments and a working capital adjustment in relation to the 2021 acquisitions of RAS AG and Life Material Technologies Limited, as presented in the table above in Note 5f. Since these liabilities were due for settlement in 2022, the fair value of the consideration approximated its nominal value.

Additionally, a further amount of deferred consideration pertains to the acquisition of assets from ChemTex Inc. in 2017 and is payable other than in a short timeframe. The fair value of the deferred consideration has been discounted using an imputed interest rate of 6% (being the Group's estimated cost of debt) to take into account the time value of money.

The deferred consideration and related financing expense are summarized below:

	ChemTex US$'000	RAS AG US$'000	Life Material Technologies Limited US$'000	Total US$'000
As at January 1, 2021	1,116	–	–	1,116
Amortization of fair value discount	58	–	–	58
Additions from acquisitions as per Note 5f	–	3,232	2,652	5,884
Gain on earnout calculation	–	(80)	–	(80)
Consideration settled in cash	(908)	–	–	(908)
Foreign exchange revaluation	13	–	–	13
As at December 31, 2021	279	3,152	2,652	6,083
Foreign exchange revaluation	–	(276)	–	(276)
Consideration settled in cash	(187)	–	(1,400)	(1,587)
Consideration settled in shares	–	(2,875)	(1,252)	(4,127)
As at December 31, 2022	**92**	**–**	**–**	**92**
Current liability	**92**	**–**	**–**	**92**
Non-current liability	**–**	**–**	**–**	**–**
Total	**92**	**–**	**–**	**92**

Notes to the consolidated financial statements continued

For the year ended December 31, 2022

6. Subsidiaries

The consolidated financial statements include the financial statements of HeiQ Plc and the subsidiaries listed in the table below.

Company	Country of registration or incorporation	Registered office	Principal activity	Percentage of ordinary shares held
HeiQ Materials AG	Switzerland	Rütistrasse 12, 8952 Schlieren Zurich	Development, production and sale of chemicals	100%
HeiQ ChemTex Inc.	United States	2725 Armentrout Dr, Concord, NC 28025	Development, production and sale of chemicals	100%
HeiQ Pty Ltd	Australia	Level 20/181 William Street, Melbourne, VIC 3000	Research and development	100%
HeiQ GrapheneX AG	Switzerland	Rütistrasse 12, 8952 Schlieren Zurich	Inactive	100%
HeiQ Company Limited	Taiwan	No. 14 & 16, Ln. 50, Wufu 1st Rd. Luzhu District, Taoyuan City 33850	Distribution	100%
HX Company Limited	Taiwan	No. 14 & 16, Ln. 50, Wufu 1st Rd. Luzhu District, Taoyuan City 33850	Trading and production	66.7%
HeiQ Medica S.L.	Spain	Plaza de la Estación s/n, 29560 Pizarra	Manufacturer of medical devices	50.1%
HeiQ Iberia Unipessoal Lda	Portugal	Rua Engº Frederico Ulrich, nº 2650, 4470-605 Maia	Sales agency and internal services company	100%
Chrisal NV	Belgium	Priester Daensstraat 9, 3920 Lommel, Belgium	Biotechnology	71%
HeiQ RAS AG	Germany	Rudolf Vogt Straße 8-10, 93053 Regensburg	Materials innovation	100%
HeiQ Regulatory GmbH	Germany	Rudolf Vogt Straße 8-10, 93053 Regensburg	Materials innovation	100%
HeiQ (China) Material Tech LTD	China	Room 2501, Xuhui Commercial Mansion, No. 168 Yude Road, Shanghai	Distribution	100%
Life Material Technologies Limited	Hong Kong	Alexandra House, 6th Floor, 16-20 Chater Road, Central	Materials technology	100%
Life Natural Limited	Hong Kong	Alexandra House, 6th Floor, 16-20 Chater Road, Central	Inactive	100%
Life-Materials Latam Ltda	Brazil	Rua Cerro Cora 1851Villa Romano, Sao Paulo SP Brasil CEP 05061350	Sales office	51%
LMT Holding Limited	Thailand	222 Lumpini Building 2, 247 Rajdamri Road Lumpini, Phatumwan, Bangkok 10330	Holding	96.45%
Life Material Technologies Limited	Thailand	222 Lumpini Building 2, 247 Rajdamri Road Lumpini, Phatumwan, Bangkok 10330	Trading	99.995%
HeiQ AeoniQ GmbH	Austria	Industriestrasse 35, 3130 Herzogenburg	Materials Innovation	97.5%
ChemTex Laboratories Inc.	United States	2725 Armentrout Dr, Concord, NC 28025	Chemical production site	100%
Beijing HeiQ Material Tech Co., Ltd.	China	Room 17B9870, Floor 17, 101 Nei, -4 to 33, Building 13, Wangjing Dongyuan Siqu, Chaoyang District, Beijing	Inactive/Distribution	100%

7. Revenue

The Group's activities are materials innovation which focuses on scientific research, manufacturing and consumer ingredient branding. The primary source of revenue is the production and sale of functional ingredients, materials and consumer goods. Other sources of revenue include services for research and development, take-or-pay and exclusivity.

The following table reconciles HeiQ Group's revenue for the periods presented:

Revenues by form	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated)*
Revenue recognized at a point in time		
Functional ingredients	**36,175**	41,951
Functional materials	**2,000**	850
Functional consumer goods	**6,827**	10,069
Services	**160**	2,548
Revenue recognized over time		
Services	**2,040**	–
Total revenue	**47,202**	55,419

Unsatisfied performance obligations

The transaction prices allocated to unsatisfied and partially unsatisfied obligations at 31 December 2022 are as set out below:

Unsatisfied performance obligations	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000
Exclusivity services	**2,100**	2,400
Research and development services	**3,750**	4,000
Total unsatisfied performance obligations	**5,850**	6,400

Management expects that 19 per cent of the transaction price allocated to the unsatisfied contracts as of the year ended 2022 will be recognized as revenue during the next reporting period (US$1.1 million). The remaining 81 per cent, US$4.8 million will be recognized in the 2024 (US$1.1 million), 2025 (US$3.1 million) and 2026 financial year (US$0.6 million).

Disclosure related to contracts with customers
Contract assets and contract liabilities are disclosed under Note 25 and Note 37, respectively. Impairment losses recognized on any receivables or contract assets arising from the Group's contracts with customers are disclosed under Note 23 and Note 25, respectively.

8. Operating Segments

Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker. The chief operating decision-maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Board of Directors of the Company.

For management purposes, the Group is organized into business units and the following reportable segments:

Segment	Activity
Textiles & Flooring	Provide innovative ingredients to make textiles & flooring more functional, durable and sustainable.
Life Sciences	Offer biotech solutions to replace harmful substances in domestic, commercial and industrial usage, for a more balanced microbiome and environment.
Antimicrobials	Functionalize different hard surfaces in everyday products and our surroundings.
Other activities	All other activities of the Group including Innovation Services, Business Development, and other non-allocated functions.

Notes to the consolidated financial statements continued

For the year ended December 31, 2022

8. Operating Segments continued

Segment revenues and profits

The following is an analysis of the Group's revenue and results by reportable segment in 2022:

Year ended December 31, 2022	Textiles & Flooring US$'000	Life Sciences US$'000	Antimicrobials US$'000	Other activities US$'000	Total US$'000
Revenue	**33,870**	**6,894**	**3,577**	**2,861**	**47,202**
Operating profits (loss)	**979**	**(1,078)**	**53**	**(29,199)**	**(29,245)**
Finance result	–	–	–	–	**(590)**
Loss before taxation	–	–	–	–	**(29,835)**
Taxation	–	–	–	–	**21**
Loss after taxation	–	–	–	–	**(29,814)**
Depreciation and amortization					
Property, plant and equipment	**308**	**260**	**16**	**698**	**1,282**
Right-of use assets	–	–	–	**938**	**938**
Intangible Assets	–	–	–	**1,435**	**1,435**
Impairment loss					
Property, plant and equipment	–	**730**	–	–	**730**
Intangible Assets	–	–	–	**12,380**	**12,380**

Year ended December 31, 2021	Textiles & Flooring US$'000	Life Sciences US$'000	Antimicrobials US$'000	Other activities US$'000	Total US$'000
Revenue	39,773	10,115	3,739	1,792	55,419
Operating profits (loss)	14,196	1,438	1,106	(18,096)	(1,354)
Finance result	–	–	–	–	(35)
Loss before taxation	–	–	–	–	(1,389)
Taxation	–	–	–	–	16
Loss after taxation	–	–	–	–	(1,373)
Depreciation and amortization					
Property, plant and equipment	300	273	–	683	1,255
Right-of use assets	–	–	–	716	716
Intangible Assets	–	–	–	976	976
Impairment loss					
Intangible Assets	–	–	–	2,454	2,454

Segment revenue reported above represents revenue generated from external customers. There were no intersegment sales in the year ended December 31, 2022 (2021: nil).

The accounting policies of the reportable segments are the same as the Group's accounting policies described in Note 3. Segment profit represents the profit earned by each segment without allocation of the central SG&A costs including expenses for infrastructure, R&D and laboratories, directors' salaries, finance income, nonoperating gains and losses in respect of financial instruments and finance costs, and income tax expense. This is the measure reported to the Group's decision-making body for the purpose of resource allocation and assessment of segment performance.

8. Operating Segments continued

Geographic information

Revenue by region	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated)*
North & South America	**20,425**	19,290
Asia	**13,376**	19,580
Europe	**13,109**	16,237
Others	**293**	312
Total revenue	**47,202**	55,419

Non-current assets by region	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated)*
Europe	**22,290**	31,008
Asia	**8,102**	8,593
North & South America	**7,734**	6,860
Others	**612**	821
Total non-current assets	**38,738**	47,282

Information about major customers

During the year ended December 31, 2022, no customers individually totaled more than 10% of total revenues (2021: none).

9. Cost of sales

Cost of sales	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated)*
Material expenses	**20,942**	23,704
Personnel expenses	**2,830**	2,164
Depreciation of property, plant and equipment	**652**	706
Other costs of sales	**9,321**	3,448
Total cost of sales	**33,745**	30,022

Other costs of goods sold include freight and custom costs, warehousing and allowances on inventory.

10. Other income

Other income	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000
Gain on disposal of property plant and equipment	**21**	54
Gain on earnout consideration payable (Note 5g)	**–**	80
Foreign exchange gains	**3,539**	5,032
Fair value gain on derivative liabilities (Note 38)	**371**	–
Other income	**901**	1,459
Total other income	**4,832**	6,625

11. Selling and general administration expenses

Selling and general administration expense	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated)*
Personnel expenses	**14,977**	13,074
Depreciation of property, plant and equipment	**630**	549
Amortization	**1,435**	976
Depreciation of right-of-use assets	**938**	716
Net credit losses on financial assets and contract assets	**85**	307
Other	**12,904**	9,058
Total selling and general administration expense	**30,969**	24,680

Other selling and general administration expenses include costs for infrastructure, professional services and marketing as well as R&D and laboratory related costs, information technology & data expenses, sales representative & distribution expenses.

Auditor's remuneration

The total remuneration of the Group's auditors, being Deloitte LLP for the audit of the year ended December 31, 2022 and Crowe UK LLP for the audit of the year ended December 31, 2021, for services provided to the Group, and included in other selling and general administration expenses, is analyzed below:

Auditor's remuneration	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000
Audit of Group	**1,180***	231
Audit of subsidiaries	**122**	84
Total fees for audit services	**1,302**	315
Audit related assurance services	**–**	6
Other assurance services	**–**	–
Total auditor remuneration	**–**	6

* Includes US$180,000 related to the 2021 audit (Crowe UK LLP) which was agreed on after the issuance of the annual report.

12. Personnel expenses

Personnel expenses	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000
Wages & salaries	**15,274**	12,708
Social security & other payroll taxes	**1,685**	1,387
Pension costs	**710**	645
Share-based payments	**138**	498
Total personnel expenses	**17,807**	15,238
Reported as cost of sales (Note 9)	**2,830**	2,164
Reported as selling and general administration expense (Note 11)	**14,977**	13,074
Total personnel expenses	**17,807**	15,238
The average monthly number of employees was as follows:	**218**	221

13. Other expenses

Other expenses	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000
Foreign exchange losses	**3,050**	4,671
Loss on disposal of property, plant and equipment	**16**	20
Transaction costs relating to mergers and acquisitions	**50**	206
Write off intangible assets (Note 18)	**897**	–
Other	**171**	1,345
Total other expenses	**4,184**	6,242

14. Finance income

Finance income	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000
Interest income	**5**	4
Gains on foreign currency transactions	**678**	518
Other	**–**	12
Total finance income	**683**	534

15. Finance costs

Finance costs	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated)*
Amortization of deferred finance costs – acquisition costs	**–**	58
Lease finance expense	**163**	117
Interest on borrowings	**110**	108
Bank fees	**98**	55
Loss on foreign currency transactions	**902**	231
Total finance costs	**1,273**	569

16. Income tax

For the year ending December 31, 2022, the Group had a tax credit of US$21,000 (2021: tax credit of US$16,000). The effective tax rate was 0.1% (2021: 1.2%). The effective tax rate was primarily impacted by non-deductible expenditure following the goodwill impairment expense as well as unrecognized tax losses.

The components of the provision for taxation on income included in the *"Statement of profit or loss and other comprehensive income"* are summarized below:

Current income tax expense	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Swiss corporate income taxes	**58**	(282)
United States state and federal taxes	**393**	(33)
Taiwan corporate income taxes	**118**	200
Belgium corporate income taxes	**(123)**	186
Germany corporate income taxes	**51**	301
Others	**63**	43
Total current income tax expense	**560**	415
Deferred income tax expense		
Switzerland	**90**	(190)
United States	**(606)**	138
China	**117**	(146)
Spain	**–**	108
Austria	**20**	(25)
Belgium	**(136)**	(285)
Others	**(66)**	(31)
Total deferred income tax expense (income)	**(581)**	(431)
Total income tax expense (income)	**(21)**	(16)

In addition to the amount charged to profit or loss, the following amounts relating to deferred tax have been recognized in other comprehensive income:

Items that will not be reclassified subsequently to profit or loss	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Remeasurement of net defined benefit liability	**(276)**	(225)
Total income tax recognized in other comprehensive income	**(276)**	(225)

Net tax (assets)/liabilities	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Opening balance – (prepaid taxes)	**51**	1,495
Assumed on business combinations	**–**	638
Assumed on asset acquisition	**(32)**	–
Income tax expense for the year	**560**	415
Taxes paid	**(870)**	(2,462)
Foreign currency differences	**(52)**	(35)
Net tax (asset)/liability	**(343)**	51

16. Income tax continued

Net tax (assets)/liabilities	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Prepaid income taxes	**(657)**	(444)
Income Tax Liabilities	**314**	495
Net tax (asset)/liability	**(343)**	51

Since the Group operates internationally, it is subject to income taxes in many different tax jurisdictions. The Group calculates its average expected tax rate as a weighted average of the tax rates in the tax jurisdictions in which the Group operates. This rate changes from year to year due to changes in the mix of the Group's taxable income and changes in local tax rates.

The Group's average expected tax rate was stable at 21.1% in 2022 (2021: 20.6%). During 2022, there were no significant changes to local tax rates in the tax jurisdictions in which the Group operates.

The differences between the statutory income tax rate and the effective tax rates are summarized as follows:

US$'000	Year ended December 31, 2022	
Expected tax at average tax rate	**(6,304)**	**21.1%**
Increase/(decrease) in tax resulting from:		
Tax credits	**(340)**	**1.1%**
Unrecognized tax losses	**3,796**	**(12.7%)**
Non-deductible expenditure	**2,586**	**(8.7%)**
Temporary differences	**165**	**(0.6%)**
Other – net	**76**	**(0.1%)**
	(21)	**0.1%**

US$'000	Year ended December 31, 2021	
Expected tax at average tax rate	(285)	20.6%
Increase/(decrease) in tax resulting from:		
Tax credits	(58)	4.1%
Unrecognized tax losses	378	(27.2%)
Non-deductible expenditure	296	(21.3%)
Tax exempt income	(105)	7.6%
Temporary differences	(259)	18.6%
Other – net	(17)	(1.2%)
	(16)	1.2%

17. Earnings per share

The calculation of the basic earnings per share is based on the following data:

Earnings

	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000 *(restated*)*
Loss attributable to the ordinary equity holders of the parent entity	**(29,251)**	(1,177)

* Earnings have been restated in the comparative period as described in note 2.

17. Earnings per share continued

Number of shares

	Year ended December 31, 2022	Year ended December 31, 2021
Weighted average number of ordinary shares for the purposes of basic earnings per share	**133,426,953**	128,871,639

Basic earnings per share is calculated by dividing the profit/loss after tax attributable to the equity holders of the Company by the weighted average number of shares in issue during the year. The effect of share options is anti-dilutive and therefore not disclosed.

18. Intangible assets

Cost	Goodwill US$'000 *(restated)*	Internally developed assets US$'000	Brand names and customer relations US$'000 *(restated)*	Acquired technologies US$'000 *(restated)*	Other intangible assets US$'000	Total US$'000 *(restated)*
As at January 1, 2021	3,516	1,851	295	–	491	6,153
Reclassification*	–	(725)	–	–	725	–
Additions through business combinations	18,599	–	4,368	3,336	580	26,883
Additions arising from internal development	–	2,390	–	–	–	2,390
Other acquisitions	–	–	–	–	579	579
Currency translation differences	(733)	(7)	(160)	(156)	(43)	(1,099)
As at December 31, 2021	21,382	3,509	4,503	3,180	2,332	34,906
Additions arising from internal development	–	2,165	–	–	–	2,165
Other acquisitions	–	–	–	–	1,700	1,700
Disposals/write-offs	–	(85)	–	–	(812)	(897)
Currency translation differences	(795)	5	(160)	(165)	14	(1,101)
As at December 31, 2022	**20,587**	**5,594**	**4,343**	**3,015**	**3,234**	**36,773**
Amortization and accumulated impairment losses						
As at January 1, 2021	–	432	107	–	350	889
Reclassification*	–	(19)	–	–	19	–
Amortization for the year	–	50	516	246	164	976
Impairment loss	2,433	21	–	–	–	2,454
Currency translation differences	(128)	(10)	(21)	(12)	(15)	(186)
As at December 31, 2021	2,305	474	602	234	518	4,133
Amortization for the year	–	198	695	334	208	1,435
Impairment loss	10,576	880	73	-	122	11,651
Currency translation differences	(750)	3	(72)	(45)	(24)	(888)
As at December 31, 2022	**12,131**	**1,555**	**1,298**	**523**	**824**	**16,331**
Net book value						
As at December 31, 2021	19,077	3,035	3,901	2,946	1,814	30,773
As at December 31, 2022	**8,456**	**4,039**	**3,045**	**2,492**	**2,410**	**20,442**

* Regulatory registrations have been reclassed from internally developed assets to other intangible assets. Internally generated assets represent expenditure incurred on development projects and IT. Other intangible assets include acquired rights, licenses, patent costs, concessions, website designs and domains and trademarks.

18. Intangible assets continued

Goodwill

Goodwill acquired in a business combination was allocated, at acquisition, to the following cash generating units (CGUs):

CGU	Description of activities
ChemTex	This CGU is based on the 2017 acquisition of ChemTex Inc. The CGU's main activities are carpet polymer, industrial polymer, textile finishes, R&D, laboratory work, production and sales. The CGU contributes to the Group's Textiles & Flooring segment.
Chrisal	The CGU is based on the 2021 acquisition of Chrisal, a biotechnology company and a leader in innovative ingredients and consumer products that incorporate the benefits of probiotics and synbiotics. The CGU contributes to the Group's Life Sciences segment.
RAS	The CGU is based on the 2021 acquisition of RAS AG. RAS AG develops and manufactures antimicrobial, hygiene-enhancing additives and durable antimicrobial coating systems which are sold under the trademark agpure®, and transparent electrically conductive and infrared reflective coatings sold under the ECOS®trademark. The CGU contributes to the Group's Antimicrobials segment.
Life	The CGU is based on the 2021 acquisition of Life Group. LIFE develops and distributes bio-based antimicrobial additives and treatments used by manufacturers of plastics, coatings, textiles, ceramics and paper, that inhibit or manage bacteria, fungi, algae, and other micro-organisms that come in contact with treated materials. The CGU contributes to the Group's Antimicrobials segment.
MasFabEs	The CGU is based on the 2020 acquisition of MasFabEs. The MasFabEs CGU manufactures medical masks and devices. The CGU contributes to the Group's Life Sciences segment.

Goodwill before impairment losses has been allocated to CGUs as follows:

Goodwill	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000 *(restated)*
ChemTex	**3,393**	3,393
Chrisal*	**5,428**	5,791
RAS*	**6,441**	6,873
Life	**5,202**	5,202
MasFabEs	**123**	123
Total goodwill acquired	**20,587**	21,382

* The balances of Chrisal and RAS are revalued from € to US$ at each reporting date.

The Group tests goodwill annually for impairment or more frequently if there are indications that these assets might be impaired. The recoverable amount of each CGU is determined based on a value in use calculation which uses cash flow projections based on financial budgets approved by the directors. The projections are based on a five-year period and a pre-tax discount rate of 12 per cent per annum for CGUs ChemTex and RAS and 14 per cent per annum for CGUs Chrisal and Life (2021: 14 per cent per annum). The discount rate is based on pre-tax weighted average cost of capital for an average company in the chemical industry adjusted for relative size and risks of each CGU. The directors expect income from all CGUs over the next five years. The perpetuity growth rate used is based on consumer price index relevant for each CGU.

The assumptions used by management in forecasting revenues for the relevant periods are as follows:

For 2023, forecast has been determined by adjusting the forecast for the year as approved by the Board ("Budget") for any variance of actual performance (to date May 2023) against it. For later periods, revenue growth was estimated based on historic (2018-2022) compound annual growth rate of the respective business. Operating profits are forecast based on historical experience of operating margins, adjusted for the impact of known or expected changes in pricing and regional inflation expectations.

18. Intangible assets continued

2022 goodwill impairment test

A summary of the key assumptions used in the value-in-use calculation is set below:

Assumption	ChemTex	Chrisal	RAS	Life
Compound annual growth rate for the next five years	1.2%	3.8%	13.9%	(0.8%)
Discount factor	12.2%	13.8%	11.7%	14.1%
Perpetual growth rate	2.0%	1.7%	2.0%	2.5%

As of end of December 2022, the Group conducted its annual goodwill impairment test review and identified that the aggregated carrying amount of each Chrisal CGU, RAS CGU and Life CGU exceeded its aggregated recoverable amount (based on the value in use approach and post-tax discount rate ranges in the 2022 table above) resulting in a total impairment loss recognized of US$10,576,000 (2021 restatement: US$2,310,000) which is accounted for as “other expenses” in the financial statements.

Goodwill relating to Chrisal CGU saw an impairment loss of US$2,402,000 in the reporting period 2022 (2021 restatement: US$1,275,000). The impairment charge results from the fact that the market development of the new technology is taking longer than anticipated at the time of acquisition of the company and therefore short-term growth assumptions have been adjusted down.

A partial goodwill impairment of US$2,972,000 for the 2022 reporting period (2021 restatement: US$1,035,000) relates to RAS CGU. The impairment loss relates to the fact that the innovation advisory business has been affected by the unexpected, temporary closing of certain government programs. Additionally, investments into innovations in general are under review as global economic markets have destabilized since acquisition. Furthermore, market launch and respective profit contribution is expected to be delayed compared to expectations upon acquisition of RAS in 2021, negatively impacting the years in consideration for the calculation of the recoverable amount of the CGU.

Lastly, the full US$5,202,000 goodwill balance relating to Life CGU was impaired in the reporting year 2022. The reason for the impairment is the significant decrease in sales towards the end of 2022 which has caused the Board to significantly lower growth expectations of the CGU for the years relevant for the calculation of the recoverable amount.

As a result of the impairment losses described above, the following book values remain for each CGU:

Goodwill book value	**As at December 31, 2022 US$'000**	As at December 31, 2021 US$'000
ChemTex	**3,393**	3,393
Chrisal	**2,189**	4,593
RAS	**2,874**	5,889
Life	**–**	5,202
MasFabEs	**–**	–
Total goodwill book value	**8,456**	19,077

* The balances of Chrisal and RAS are revalued from € to US$ at each reporting date.

18. Intangible assets continued

Sensitivity analysis

The Group has conducted an analysis of the sensitivity of the impairment test to reasonably possible changes in the key assumptions used to determine the recoverable amount for each CGU to which goodwill is allocated. In the process, the recoverable amount for RAS CGU was identified as key estimate.

An reasonably possible underperformance against the forecast sales growth rate (13.9%) for RAS CGU by 8.9 percent points, i.e. applying a compound annual growth rate of 5% for the next five years, would lead to an additional impairment charge of US$2.1 million.

2021 goodwill impairment test

In the reporting year ended December 31, 2021, the goodwill related to the MasFabEs CGU was tested for impairment. The MasFabEs CGU manufactures medical masks and devices. Using a discount rate of 14%, the Company calculated a value-in-use of US$544,000 which was less than the carrying amount and accordingly an impairment provision of US$123,000 was posted in the year ended December 31, 2021. The impairment was a consequence of declining customer demand.

Furthermore, as explained in Note 2, the 2021 goodwill impairment test result has been restated which resulted in an impairment charge of US$1,275,000 and US$1,035,000 for Chrisal and RAS CGU respectively.

Internally developed assets under construction

The Group tests internally developed assets under construction on a yearly basis. The Directors consider whether estimated future economic benefits outweigh the costs capitalized by reviewing whether each project:

- is still in development phase;
- can be used or sold in the future; and
- can be completed given the technical, financial and other resources available.

The Group has processes in place for continually reviewing development expenditure to ensure that projects under development are still viable. In the reporting year ended December 31, 2022, a US$880,000 impairment was considered in relation to the GrapheneX project assets as timing of future benefits is not predictable with high enough certainty.

Internally developed assets and other intangibles with finite lives

The Group tests internally developed assets and other intangibles with finite lives for impairment only if there are indications that these assets might be impaired. The Group has processes in place for continually reviewing development expenditure to ensure that projects under development are still viable. For the reporting year ended December 31, 2022, the Company concluded that an impairment of US$122,000 is necessary for capitalized registration fees obtained in the acquisition of RAS following decreased customer demand. Additionally, brand names and customer relations related to the Life CGU saw an impairment of US$73,000 as a result of the sales decline mentioned above in the goodwill impairment test.

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19. Property, plant and equipment

Cost	Machinery and equipment US$'000	Motor vehicles US$'000	Computers and software US$'000	Furniture and fixtures US$'000	Land and buildings US$'000	Total US$'000
As at January 1, 2021	6,779	492	810	132	–	8,213
Acquisition on business combination	191	19	24	171	1,675	2,080
Additions	596	67	104	213	14	994
Disposals	(30)	(37)	–	(15)	(68)	(150)
Currency translation differences	(248)	(5)	(24)	(27)	(98)	(402)
As at December 31, 2021	7,288	536	914	474	1,523	10,735
Additions	2,272	26	197	50	2,736	5,280
Disposals	(69)	(12)	–	–	–	(81)
Reclassifications	(407)	59	–	348	–	–
Currency translation differences	(233)	(1)	(21)	(23)	(91)	(369)
As at December 31, 2022	**8,851**	**608**	**1,090**	**849**	**4,168**	**15,565**
Depreciation and accumulated impairment losses						
As at January 1, 2021	2,002	242	464	38	–	2,746
Charge for the year	797	118	168	55	117	1,255
Eliminated on disposal	(13)	(26)	–	(7)	–	(46)
Currency translation differences	(63)	(4)	(13)	–	(5)	(85)
As at December 31, 2021	2,723	330	619	86	112	3,870
Charge for the year	763	90	218	83	128	1,282
Eliminated on disposal	(27)	(5)	–	–	–	(32)
Impairment loss	730	–	–	–	–	730
Reclassifications	(222)	–	–	222	–	–
Currency translation differences	(67)	–	(9)	(3)	(7)	(86)
As at December 31, 2022	**3,900**	**415**	**828**	**388**	**233**	**5,764**
Net book value						
As at December 31, 2021	4,565	206	295	388	1,411	6,865
As at December 31, 2022	**4,951**	**193**	**262**	**461**	**3,935**	**9,802**

Impairment losses recognized in the year

During the year ended December 31, 2022, as a result of the significant decline in demand for of certain types of hygiene masks, the Group carried out a review of the recoverable amount of machinery. The Group recognized an impairment loss of US$730,000 for machinery that was intended to be used to manufacture hygiene masks for which demand declined significantly. The asset was used in the Life Sciences reportable segment.

20. Right-of-use assets

Cost	Land and buildings US$'000 *(restated)*	Motor vehicles US$'000	Machinery and equipment US$'000 *(restated)*	Total US$'000 *(restated)*
As at January 1, 2021	3,701	76	41	3,818
Additions through business combinations	122	300	–	422
Additions	5,147	289	264	5,700
Disposals due to expiry of lease	–	(33)	(9)	(42)
Currency translation differences	(57)	(21)	45	(33)
As at December 31, 2021	8,913	611	341	9,865
Additions	86	174	1,921	2,181
Disposals due to expiry of lease	–	(36)	–	(36)
Disposals due to business combination*	(467)	–	–	(467)
Modification to lease terms**	(1,199)	–	–	(1,199)
Currency translation differences	(381)	(67)	26	(474)
As at December 31, 2022	**6,952**	**682**	**2,236**	**9,870**
Depreciation				
As at January 1, 2021	1,182	60	12	1,254
Depreciation for the year	564	89	63	716
Disposals due to expiry of lease	–	(32)	(9)	(41)
Currency translation differences	(30)	(8)	–	(38)
As at December 31, 2021	1,716	109	66	1,891
Depreciation for the year	730	140	68	938
Disposals due to expiry of lease	–	(36)	–	(36)
Modification to lease terms**	(693)	–	–	(693)
Currency translation differences	(34)	(6)	(9)	(49)
As at December 31, 2022	**1,719**	**207**	**125**	**2,051**
Net book value				
As at December 31, 2021	7,197	502	275	7,974
As at December 31, 2022	**5,233**	**475**	**2,111**	**7,819**

* With the acquisition of ChemTex Laboratories' property, plant and equipment (Note 26), the Group no longer has a lease liability with a third party.

** The Group agreed to shorten the agreed lease terms of two existing leases from 2032 to 2027. These modifications have resulted in a reduction in the total amounts payable under the leases and a reduction to both of the right-of-use assets and lease liabilities with effect from the date of modification as follows:

Revaluation	Before revaluation US$'000	After revaluation US$'000	Revaluation US$'000
Right-of-use assets	1,385	879	(506)
Lease liabilities	(1,453)	(879)	574
Impact on net assets	68	–	68

The impact on net assets was recognized as non-operating income.

20. Right-of-use assets continued

Amounts recognized in profit and loss

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Depreciation expense on right-of-use assets	**938**	716
Interest expense on lease liabilities	**163**	118
Expense relating to short-term leases	**225**	189
Expense relating to leases of low value assets	**40**	22

Amounts recognized in cash flow statement

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Total fixed lease payments	**992**	662
Interest paid on leases	**163**	117

21. Other non-current assets

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Deposits	**80**	140
Other pre-payments	**57**	193
Other non-current assets	**137**	333

22. Inventories

	As at December 31, 2022 US$'000	As at December 31 2021 US$'000
Functional ingredients	**7,420**	7,480
Functional materials	**4,000**	4,310
Functional consumer goods	**1,748**	1,822
Services	**–**	158
Total inventories	**13,168**	13,770

The cost of inventories recognized as an expense during the year in respect of continuing operations was US$33,597,000 (2021: US$30,022,000).

The cost of inventories recognized as an expense includes US$4,912,000 (2021: US$17,000) in respect of write-downs of inventory to net realizable value. The write-downs are mainly related to stock that is unlikely to be sold or consumed within 12 months due to a decline in forecasted customer demand.

There have been no reversals of such write-downs for the reporting period (2021: nil).

23. Trade receivables

Trade receivables	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Not past due	**2,788**	7,567
< 30 days	**520**	2,930
31-60 days	**781**	55
61-90 days	**215**	1,115
91-120 days	**180**	351
>120 days	**2,407**	2,962
Total trade receivables	**6,891**	14,980
Provision for expected credit loss	**(404)**	(324)
Total trade receivables (net)	**6,487**	14,656

The average credit period on sales of goods varies by region from 30 – 120 days. No interest is charged on outstanding trade receivables. The Group always measures the loss allowance for trade receivables at an amount equal to lifetime ECL. The expected credit losses on trade receivables are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for factors that are specific to the debtors, general economic conditions of the industry in which the debtors operate and an assessment of both the current as well as the forecast.

As at December 31, 2022, the Group has recognized an expected credit loss of US$404,000 (2021: US$324,000). The following table details the risk profile of receivables based on the Group's provision matrix.

Lifetime Expected credit losses on trade receivables

	Trade receivables – days past due				
Expected credit loss on trade receivables 2022	**Not past due US$'000**	**1-60 US$'000**	**61-120 US$'000**	**>120 days US$'000**	**Total US$'000**
Expected credit loss rate	**0%**	**0%**	**0%**	**17%**	**6%**
Estimated total gross carrying amount at default	**2,788**	**1,301**	**395**	**2,406**	**6,891**
Lifetime ECL as at December 31, 2022	**–**	**–**	**–**	**404**	**404**

	Trade receivables – days past due				
Expected credit loss on trade receivables 2021	Not past due US$'000	1-60 US$'000	61-120 US$'000	>120 days US$'000	Total US$'000
Expected credit loss rate	0%	0%	0%	11%	2%
Estimated total gross carrying amount at default	7,567	2,985	1,466	2,962	14,980
Lifetime ECL as at December 31, 2021	–	–	–	324	324

23. Trade receivables continued

The following table shows the movement in lifetime ECL that has been recognized for trade receivables in accordance with the simplified approach set out in IFRS 9.

Expected credit losses	Individually assessed US$'000	Collectively assessed US$'000	Total US$'000
Balance as at January 1, 2021	13	27	40
Net remeasurement of loss allowance	288	19	307
Foreign exchange gains and losses	(23)	–	(23)
Balance as at December 31, 2021	278	46	324
Net remeasurement of loss allowance	172	(6)	166
Amounts written off	(81)	–	(81)
Foreign exchange gains and losses	(4)	(1)	(5)
Balance as at December 31, 2022	**365**	**39**	**404**

The following tables explain how significant changes in the gross carrying amount of the trade receivables contributed to changes in the loss allowance:

Increase (decrease) in lifetime expected credit losses for 2022	US$'000
Origination of new trade receivables net of those settled, as well as increase in days past due up to 120 days	**172**
Write-off of receivables older than 120 days	**(81)**

Increase (decrease) in lifetime expected credit losses for 2021	US$'000
Origination of new trade receivables net of those settled, as well as increase in days past due up to 120 days	288

24. Other receivables and prepayments

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Contract assets	**115**	250
Receivables from tax authorities	**1,864**	1,734
Prepayments	**1,023**	1,052
Other receivables	**1,260**	840
Total other receivables and prepayments	**4,262**	3,876

25. Contract assets

Amounts relating to contract assets are balances due from customers under construction contracts that arise when the Group receives payments from customers in line with a series of performance-related milestones. The Group recognizes a contract asset for any work performed. Any amount previously recognized as a contract asset is reclassified to trade receivables at the point at which it is invoiced to the customer.

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000	As at January 1, 2021 US$'000
Research and development services	**65**	80	–
Take-or-pay services	**–**	170	–
Exclusivity services	**50**	–	–
Total contract assets	**115**	250	–
Current assets	**115**	250	–
Non-current assets	**–**	–	–
Total contract assets	**115**	250	–

Revenues related to research and development services were recognized at the point of delivering proof of concept and completing testing services. Performance obligations related to exclusivity services were deemed fulfilled by the Group upon completion of the contractual term. Payment for the above services is not due from the customer yet and therefore a contract asset is recognized.

The directors of the Company always measure the loss allowance on amounts due from customers at an amount equal to lifetime ECL, taking into account the historical default experience, the nature of the customer and where relevant, the sector in which they operate. There has been no change in the estimation techniques or significant assumptions made during the current reporting period in assessing the loss allowance for the amounts due from customers under construction contracts.

Lifetime Expected credit losses on contract assets

The following table details the risk profile of amounts due from customers based on the Group's provision matrix. Based on the historic default experience, no expected credit loss has been recognized:

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Expected credit loss rate	**0%**	0%
Estimated total gross carrying amount at default	**115**	250
Lifetime ECL	**–**	–
Net carrying amount	**115**	250

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26. Issued share capital and share premium

Movements in the Company's share capital and share premium account were as follows:

	Note	Number of shares No.	Share capital US$'000	Share premium US$'000	Totals US$'000
Balance as of January 1, 2021		125,891,904	49,559	134,537	184,096
Issue of shares to acquire Chrisal NV	5c	1,101,928	456	2,526	2,982
Issue of shares to acquire RAS AG	5d	1,701,821	710	3,946	4,656
Issue of shares to acquire Life Materials	5e	1,887,883	798	3,182	3,980
Balance as at December 31, 2021		**130,583,536**	**51,523**	**144,191**	**195,714**
Issue of shares to vendors of Life Materials (a)		347,552	141	471	612
Issue of shares as deferred consideration (b)	5g	3,461,615	1,359	2,921	4,280
Issue of shares to Advisory Board and others (c)		164,721	60	175	235
Issue of shares ChemTex Labs (d)		2,176,884	795	1,177	1,972
Issue of shares Chrisal (e)	5a	3,348,164	1,223	1,838	3,061
Balance as at December 31, 2022		**140,082,472**	**55,101**	**150,773**	**205,874**

The par value of all shares is £0.30. All shares in issue were allotted, called up and fully paid.

The share premium account represents the amount received on the issue of ordinary shares by the Company in excess of their nominal value and is non-distributable.

The Company issued new ordinary shares for the following:

a) On February 25, 2022, HeiQ Plc issued 347,552 new ordinary shares of £0.30 each in the Company. These shares were allotted to the vendors of Life Material Technologies Limited to satisfy a closing working capital adjustment in the amount of US$612,000 in connection with the Company's acquisition of Life in June 2021.

b) On May 12, 2022, HeiQ Plc issued a total of 3,461,615 ordinary shares as part of the deferred consideration paid pursuant to the acquisitions of RAS AG, Regensburg, Germany ("RAS AG") and Life Material Technologies Limited ("LIFE").
   - In relation to the acquisition of RAS AG, the Company made a payment of €2.6 million (approximately US$2.88 million), based on RAS AG's performance for the year ended December 31, 2021. The deferred consideration was settled entirely through the issue of 2,743,941 ordinary shares in the capital of the Company.
   - In relation to the acquisition of LIFE, the Company made a payment of US$2.8 million, based on LIFE's financial performance for the year ended December 31, 2021. The deferred consideration was settled equally in cash (US$1.4 million) and through the issue of 717,674 ordinary shares (US$1.4 million) in the capital of the Company. The share issue satisfied earnout payments as part of the purchase consideration of US$640,000 as well as share-based payments made as remuneration of US$764,000 which were not part of the purchase consideration.

c) On August 9, 2022, the Company issued 164,721 new ordinary shares for a consideration of £173,000 (approximately US$ 235,000) to satisfy certain share payments due to the Company's Innovation Advisory Board, as well as for consultancy and other services provided by third parties.

d) On December 2, 2022, HeiQ Plc completed the acquisition of 100% of the issued share capital and voting rights of ChemTex Laboratories, Inc. ("ChemTex Labs") in North Carolina, USA for a total consideration of US$2.5 million. The purchase consideration was payable partly in cash (US$550,000) and partly by the issue of 2,176,884 new ordinary shares for (US$1.95 million). The acquisition was accounted for as asset acquisition resulting in the addition of land and buildings worth US$2.4 million. The Group also assumed US$65,000 in cash, prepaid income tax of US$32,000 as well as accrued liabilities worth US$9,000.

e) On December 15, 2022, HeiQ increased its interest In HeiQ Chrisal from 51% to 71%. HeiQ paid €2.9 million (approximately US$3 million) for the additional 20% shareholding to the vendors of Chrisal through the issue of 3,348,164 new ordinary shares in the Company.

27. Share-based payments

Equity-settled Share Option Scheme

The Company has adopted the HeiQ Plc Option Scheme.

Under the Option Scheme, awards may be made only to employees and executive directors. The Board will administer the Option Scheme with all decisions relating to awards made to executive directors taken by the Remuneration Committee.

Awards under the equity-settled option plan will be market value options, but participants resident in jurisdictions where local securities laws or other regulations are considered problematic may be awarded cash-based equivalents. Any awards made are not pensionable.

All awards made will be subject to one or more performance conditions at the discretion of the Board. Ordinary Shares received on exercise of any options awarded under the Option Scheme may be required to be held for a period of time before they can be disposed of (other than disposals to satisfy any tax payable on exercise).

The total number of Ordinary Shares which can be issued under the Option Scheme (together with any other employees' share scheme operated by the Company) may not exceed 10 per cent. of the Company's ordinary share capital from time to time.

An option-holder has no voting or dividend rights in the Company before the exercise of a Share option.

There are currently four option grants with the same vesting requirements. The key performance indicators attaching to these awards relate to targets for sales growth (65 per cent. of the award) and operating margin (35 per cent. of the award) over a period of three years.

Options are exercisable at a price equal to the average quoted market price of the Company's shares on the date of grant. The vesting period is three years. If the options remain unexercised after a period of ten years from the date of grant the options expire. Options are forfeited if the employee leaves the Group before the options vest.

Details of the share options outstanding during the year are as follows:

	As at December 31, 2022		As at December 31, 2021	
	Number of options	**Weighted average exercise price (£)**	Number of options	Weighted average exercise price (£)
Outstanding at beginning of year	**8,707,658**	**1.06**	6,260,000	1.12
Granted during the year	**3,349,125**	**0.83**	2,447,658	0.90
Forfeited during the year	**(530,872)**	**1.05**	–	–
Exercised during the year	**–**	**–**	–	–
Expired during the year	**–**	**–**	–	–
Outstanding at the end of the year	**11,525,911**	**0.99**	8,707,658	1.06
Exercisable at the end of the year	**–**	**–**	–	–

The options outstanding at December 31, 2022 had a weighted average exercise price of £0.994 and a weighted average remaining contractual life of 1.5 years. In 2022, options were granted on June 15 and September 26. The aggregate of the estimated fair values of the options granted on those dates is £1,117,000 (approximately US$1,304,000). In 2021, options were granted on October 19. The aggregate of the estimated fair values of the options granted on that date was £930,000 (approximately US$1,275,000). The inputs into the Black-Scholes model are as follows:

	Year ended December 31, 2022	Year ended December 31, 2021
Weighted average share price (£)	**0.817**	0.900
Weighted average exercise price (£)	**0.834**	0.903
Expected volatility	**69.3%/70.3%***	64%
Expected life	**2.6/2.3 years***	3 years
Risk-free rate	**0.19%/0.44%***	0.71%
Expected dividend yields	**0%**	0%

* In the reporting year ended 2022, there were two grants with different inputs used in the black scholes model.

27. Share-based payments continued

Expected volatility was determined by calculating the historical volatility of the Group's share price since going public in December 2020. The expected life used in the model is equal to the vesting period.

Due to lower market expectations, the number of options expected to vest dropped to 2,279,236 (2021: 5,204,978). This resulted in an income of US$12,000 arising from these share-based payment transactions for the year ended December 31, 2022 (expense for the year ended December 31, 2021: US$424,000).

Other share-based payments

Remuneration of US$764,000 described in Note 26 in relation to the acquisition of Life Materials Technologies Limited is linked to a service period of five years. An expense of US$150,000 was recognized in the year ended December 31, 2022 (year ended December 31, 2021: US$74,000). The remainder of approximately US$544,000 is expected to be expensed over the period from January 1, 2023, to June 30, 2026.

28. Other reserves and retained deficit

Other reserves comprize the share-based payment reserve, the merger reserve, the currency translation reserve and the other reserve.

The retained deficit comprizes all other net gains and losses and transactions with owners not recognized elsewhere.

Movements in the other reserves were as follows:

	Note	Share- based payment reserve US$'000	Merger reserve US$'000	Currency translation reserve US$'000	Other reserve US$'000	Total Other reserves US$'000
Balance at January 1, 2021		50	(126,912)	2,937	(2,043)	(125,968)
Other comprehensive (loss)/income		–	–	(2,550)	899	(1,651)
Total comprehensive (loss)/income for the year		–	–	(2,550)	899	(1,651)
Share-based payment charges	27	424	–	–	–	424
Transactions with owners		*424*	–	–	–	*424*
Balance at December 31, 2021		474	(126,912)	387	(1,144)	(127,195)
Other comprehensive (loss)/income		–	–	(1,914)	1,104	(810)
Total comprehensive (loss)/income for the year		–	–	(1,914)	1,104	(810)
Share-based payment charges	27	(12)	–	–	–	(12)
Transactions with owners		(12)	–	–	–	(12)
Balance at December 31, 2022		**462**	**(126,912)**	**(1,527)**	**(40)**	**(128,017)**

The share-based payment reserve arises from the requirement to fair value the issue of share options at grant date. Further details of share options are included at Note 27.

The merger reserve was created in accordance with IFRS3 'Business Combinations'. The merger reserve arises due to the elimination of the Company's investment in HeiQ Materials AG. Since the shareholders of HeiQ Materials AG became the majority shareholders of the enlarged Group, the acquisition is accounted for as though there is a continuation of the legal subsidiary's financial statements. In reverse acquisition accounting, the business combination's costs are deemed to have been incurred by the legal subsidiary.

The currency translation reserve represents cumulative foreign exchange differences arising from the translation of the financial statements of foreign subsidiaries and is not distributable by way of dividends.

The other reserve comprizes the cumulative re-measurement of defined benefit obligations and plan assets to fair value, and which are recognized as a component of other comprehensive income. Such actuarial gains and losses from defined benefit pension plans are not reclassified to profit or loss in subsequent periods.

28. Other reserves and retained deficit continued

Dividend paid by subsidiary

In June 2022, HeiQ Chrisal N.V. declared and paid a dividend of €470,000 (approximately US$496,000) of which 49% or US$243,000 was paid to minority shareholders.

Capital contributions from minority shareholders

The Group received a capital contribution from a minority shareholder of US$764,000 which arose from a waived loan (see Note 31 for details).

29. Pensions and other post-employment benefit plans

The Group operates a defined benefit pension plan in Switzerland, which requires contributions to be made to a separately administered fund. The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method.

Correspondingly the value of the defined benefit obligation at valuation date is equal to the present value of the accrued pro-rated service considering expected salary at eligibility date and the future pension increase.

The pension scheme was administered by Swisscanto pension fund ("Swisscanto Sammelstiftung") until December 31, 2021, and by AXA pension fund from January 1, 2022, following a change in pension fund provider. The Directors have adopted the actuarial valuation as of January 1, 2022.

Pension plan description

The pension plans grant disability and death benefits which are defined as a percentage of the salary insured. Although the Swiss plan operates like a defined contribution plan under local regulations, it is accounted for as a defined benefit pension plan under IAS19 'Employee Benefits' because of the need to accrue a minimum level of interest on the mandatory part of the pension accounts. Upon reaching retirement age, the savings capital will be converted with a fixed conversion rate into an old-age pension. In the event that an employee leaves employment prior to reaching a pensionable age, the cumulative balance of the savings account is withdrawn from the pension plan and invested into the pension plan of the employee's new employer.

Regulatory framework

Pension plan legal structure

HeiQ Materials AG is affiliated to a collective foundation. The collective foundation operates one defined benefit pension plan for HeiQ Materials AG. Under Swiss law, all employees are required to be a member of the pension plan. There are minimum benefits requested by law (for old-age, disability, death and termination). The pension plans cover more than legally requested. Each affiliated company has a pension plan committee. The committee is represented by 50% of employer representatives and the remaining 50% are employee representatives.

Responsibilities of the board of trustees (and/or the employer on the board of trustees)

The highest corporate body of the collective foundation is the board of trustees. The board of trustees is elected out of the affiliated companies and is also represented by 50% of employee and employer representatives (on the level of the collective foundation). This board handles the general management of the pension scheme, ensures compliance with the statutory requirements, defines the strategic objectives and policies of the pension scheme and identifies the resources for their implementation. This board decides also on the asset allocation and is responsible to the authorities for the correct administration of the collective foundation.

Special situation

The pension scheme has no minimum funding requirement (when the pension fund is in a surplus position), although the pension scheme has a minimum contribution requirement as specified below. Under local requirements, where a pension fund is operated in a surplus position, limited restrictions apply in terms of the trustee's ability to apply benefits to the members of the locally determined "free reserves". In instances where the pension fund enters into an underfunded status the active members, along with the employer, are required to make additional contributions until such time the pension fund is in a fully funded position.

Funding arrangements that affect future contributions

Swiss law provides for minimum pension obligations on retirement. Swiss law also prescribes minimum annual funding requirements. An employer may provide or contribute a higher amount than as specified under Swiss law – such amounts are specified under the terms and conditions of each of the Swiss employee's individual terms and conditions of employment.

In addition, employers are able to make one off contributions or prepayments to these funds. Although these contributions cannot be withdrawn, they are available to the Company to offset its future employer cash contributions to the plan. Although a surplus can exist in the fund, Swiss law requires minimum annual funding requirements to continue.

29. Pensions and other post-employment benefit plans continued

For the active members of the pension plan, annual contributions are required by both the employer and employee. The employer contributions must be at least equal to the employee contributions, but may be higher, separately mentioned in the constitution of the pension plan.

Minimum annual contribution obligations are determined with reference to an employee's age and current salary, however as indicated above these can be increased under the employee's terms and conditions of employment.

In the event of the winding up of HeiQ Materials AG, or the pension fund, HeiQ Materials AG has no right to any refund of any surplus in the pension fund. Any surplus balance is allocated to the members (active and pensioners).

General risk

The Group faces the risk that its equity ratio can be affected by a poor performance of the assets of the pension fund or a change of assumptions. Therefore, sensitivities of the main assumptions have been calculated and disclosed (see below).

The following tables summarize the components of net benefit expense recognized in the statement of profit and loss and the funded status and amounts recognized in the statement of financial position for the plan:

Net benefit obligations

The components of the net defined benefits obligations included in non-current liabilities are as follows:

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Fair value of plan assets	**9,616**	10,858
Defined benefit obligations	**(10,568)**	(13,003)
Funded status (net liability)	**(952)**	(2,146)
Duration (years)	**13.8**	16.5
Expected benefits payable in following year	**(389)**	(393)

Development of obligations and assets	**Year ended December 31, 2022 US$'000**	Year ended December 31, 2021 US$'000
Present value of funded obligations, beginning of year	**(13,003)**	(9,588)
Employer service cost	**(571)**	(521)
Employee contributions	**(352)**	(342)
Past service cost	**–**	28
Curtailments/Settlements	**–**	65
Interest cost	**(45)**	(14)
Benefits paid/(refunded)	**522**	(2,589)
Actuarial (loss)/gain on benefit obligation	**2,562**	(256)
Currency (loss)/gain	**319**	214
Present value of funded obligations, end of year	**(10,568)**	(13,003)
Defined benefit obligation participants	**(10,568)**	(13,003)
Defined benefit obligation pensioners	**–**	–
Present value of funded obligations, end of year	**(10,568)**	(13,003)
Fair value of plan assets, beginning of year	**10,858**	6,311
Expected return on plan assets	**37**	10
Employer's contributions	**352**	342
Employees' contributions	**352**	342
Benefits (paid)/refunded	**(522)**	2,589
Admin expense	**(21)**	(20)
Actuarial (loss)/gain on plan assets	**(1,182)**	1,380
Currency gain/(loss)	**(258)**	(96)
Fair value of plan assets, end of year	**9,616**	10,858

29. Pensions and other post-employment benefit plans continued

Movements in net liability recognized in statement of financial position:

	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Net liability, beginning of year	**(2,146)**	(3,276)
Employer service cost	**(571)**	(521)
Interest cost	**(45)**	(14)
Expected return on plan assets	**37**	10
Admin expense	**(21)**	(20)
Past service cost recognized in year	**–**	28
Curtailment, settlement, plan amendment gain (loss)	**–**	65
Employer's contributions (following year expected contributions)	**352**	342
Prepaid (accrued) pension cost:	**247**	111
– operating income (expense)	**(240)**	(107)
– finance expense	**(7)**	(4)
Total gains recognized within other comprehensive income	**1,380**	1,124
Currency loss	**62**	116
Net liability, end of year	**(952)**	(2,146)
Expected employer's cash contributions for following year	**360**	361

The assets of the scheme are invested on a collective basis with other employers. The allocation of the pooled assets between asset categories is as follows.

Asset allocation

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Cash	**2.8%**	3.6%
Bonds	**29.1%**	31.7%
Equities	**33.2%**	34.8%
Property (incl. mortgages)	**31.3%**	27.0%
Other	**3.6%**	2.9%
Total	**100.0%**	100.0%

Amounts recognized in profit and loss

	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Employer service cost	**(571)**	(521)
Past service cost recognized in year	**–**	28
Interest cost	**(45)**	(14)
Expected return on plan assets	**37**	10
Admin expense	**(21)**	(20)
Curtailment, settlement, plan amendment gain (loss)	**–**	64
Components of defined benefit costs recognized in profit or loss	**(600)**	(453)

29. Pensions and other post-employment benefit plans continued

Amounts recognized in other comprehensive income

	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Actuarial gains/(losses) arising from plan experience	**2,392**	(1,449)
Actuarial (losses)/gains arising from demographic assumptions	**(23)**	744
Actuarial gains arising from financial assumptions	**193**	449
Re-measurement of defined benefit obligations	**2,562**	(256)
Re-measurement of assets	**(1,182)**	1,380
Deferred tax asset recognized	**(276)**	(225)
Other	**–**	–
Total recognized in OCI	**1,104**	899

Principal actuarial assumptions (beginning of year):

The principal assumptions used in determining pension and post-employment benefit obligations for the plan are shown below:

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Discount rate	**2.25%**	0.35%
Interest credit rate	**2.25%**	1.00%
Average future salary increases	**2.50%**	2.00%
Future pension increases	**0.00%**	0.00%
Mortality tables used	**BVG 2020 GT**	BVG 2020 GT
Average retirement age	**65/65**	65/64

The forecasted contributions of the Group for the 2023 financial year amount to US$360,000.

Sensitivities

A quantitative sensitivity analysis for significant assumptions is as follows:

Impact on defined benefit obligation	**As at December 31, 2022 US$'000**	As at December 31, 2021 US$'000
Discount rate + 0.25%	**(323)**	(524)
Discount rate – 0.25%	**343**	560
Salary increase + 0.25%	**44**	72
Salary increase – 0.25%	**(43)**	(70)
Pension increase + 0.25%	**167**	278
Pension decrease – 0.25% (not lower than 0%)	**–**	–

A negative value corresponds to a reduction of the defined benefit obligation, a positive value to an increase of the defined benefit obligation.

The sensitivity analyses above have been determined based on a method that extrapolates the impact on the defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. The sensitivity analyses are based on a change in a significant assumption, keeping all other assumptions constant. The sensitivity analyses may not be representative of an actual change in the defined benefit obligation as it is unlikely that changes in assumptions would occur in isolation from one another.

29. Pensions and other post-employment benefit plans continued

Other pension plans

Life Materials Technologies Limited, Thailand, also has a pension scheme which gives rise to defined benefit obligations under IAS 19. This pension plan contributed a net defined benefit obligation of US$92,000 to the net assets acquired in the business combination in 2021. The pension expense in profit and loss was US$1,000 (2021: US$43,000) which results in a US$134,000 net defined liability as at December 31, 2021 (2021: US$135,000).

30. Lease liabilities

Future minimum lease payments associated with leases were as follows:

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Not later than one year	**1,301**	959
Later than one year and not later than five years	**3,813**	3,253
Later than five years	**3,387**	4,905
Total minimum lease payments	**8,501**	9,117
Less: Future finance charges	**(679)**	(1,003)
Present value of minimum lease payments	**7,822**	8,114
Current liability	**1,264**	905
Non-current liability	**6,558**	7,209
	7,822	8,114

31. Borrowings

The Group's borrowings are held at amortized cost. They consist of the following:

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Unsecured bank loans	**3,573**	1,159
Secured bank loans	**628**	778
Loans from non-controlling interest	**137**	825
Total borrowings	**4,338**	2,762

The other principal features of the Group's borrowings are as follows:

Unsecured bank loans

A credit facility was taken out in December 2022 which incurs interest at a fixed rate of 2.2%. It was repaid on February 28, 2023 and the loan was replaced with a new credit facility worth CHF 4,500,000 (US$ 4,964,000). As at December 31, 2022, CHF 2,400,000 (US$2,574,000) was outstanding.

Several loans amounting to US$1.6 million were assumed through the acquisition of Chrisal. They finance the acquisition of property, plant and equipment as well as the prepayment of provisional taxes. As at December 31, 2022, €938,000 (US$999,000) is outstanding (2021: €1,019,000 (US$1,159,000)). A further €277,000 was taken out in February 2023. The loans are repayable over a period of up to ten 10 years. These loans all have fixed interest rates between 0.78 and 3.95% and the weighted average fixed interest rate on the outstanding balances is 2.21%.

31. Borrowings continued

Loans from non-controlling interests

A loan is payable to a minority shareholder of Life-Materials Latam Ltda, Brazil. Interest is fixed at 0.5%. There is no specific repayment date, but the loan is payable once the entity is able to repay it. The balance as at December 31, 2022 is BRL 715,683 (US$137,000).

The balance as at December 31, 2021 included three loans totaling €725,000 (US$825,000) payable to a company controlled by a minority shareholder of HeiQ Medica. The loans did not incur any interest and were waived in full by the borrower in December 2022 resulting in a capital contribution from minority shareholders of US$764,000.

Secured bank loans

A bank loan taken out in October 2020 which incurs interest at a fixed rate of 3.25% and which is secured on property owned by a company which is controlled by a minority shareholder of HeiQ Medica. It is repayable in equal monthly installments of €8,000 (US$9,500) over eight years up to September 2028. As at December 31, 2022, €590,000 (US$629,000) is outstanding (2021: US$779,000).

The following table provides a reconciliation of the Group's future maturities of its total borrowings for each year presented:

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Not later than one year	**2,893**	1,157
Later than one year but less than five years	**1,029**	951
After more than five years	**416**	654
Total borrowings	**4,338**	2,762

32. Deferred tax

The following are the major deferred tax liabilities and assets recognized by the Group and movements thereon during the current and prior reporting period.

	Pension fund obligations US$'000	Tax losses US$'000	Share-based payments US$'000	Capital allowances, depreciation and other temporary differences US$'000	Total US$'000
Balance at January 1, 2021	655	171	–	(395)	431
Charge to profit or loss	22	17	82	310	431
Charge to other comprehensive income	(225)	–	–	–	(225)
Business Combinations	–	–	–	(1,627)	(1,627)
Foreign currency differences	(23)	(10)	3	26	(4)
Balance as at December 31, 2021	**429**	**178**	**85**	**(1,686)**	**(994)**
Charge to profit or loss	49	(150)	1	681	581
Charge to other comprehensive income	(276)	–	–	–	(276)
Foreign currency differences	(12)	(28)	5	9	(26)
Balance as at December 31, 2022	**190**	**–**	**91**	**(996)**	**(715)**

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

32. Deferred tax continued

The following is the analysis of the deferred tax balances (after offset) for financial reporting purposes:

	Year ended December 31, 2022 US$'000	Year ended December 31, 2021 US$'000
Deferred tax		
Deferred tax assets	**538**	1,337
Deferred tax liabilities	**(1,253)**	(2,333)
Net deferred tax assets (liabilities)	**(715)**	(994)

Deferred tax assets amounting to US$239,000 were derecognized following remeasurements of defined benefit obligations (see also Note 29). Deferred tax liabilities related to capital allowances and depreciation decreased following the release of excess reserves on inventory and receivables in Switzerland as well as amortization of intangible assets acquired in the business combinations in 2021.

As at December 31, 2021, the Group had approximately US$178,000 of tax losses available to be carried forward against future profits. Management no longer expects the deferred tax asset to be substantially recovered in 2023. Therefore, the deferred tax assets were derecognized as at December 31, 2022.

Some tax losses were not recognized as deferred tax assets. During the year ended December 31, 2022, such tax losses amounted to US$3,175,000 (2021: US$378,000). They arose from aggregated losses of US$17,482,000 (2021: US$1,134,000).

33. Other non-current liabilities

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Defined benefit obligation IAS 19 Switzerland (Note 29)	**952**	2,146
Defined benefit obligation IAS 19 Thailand (Note 29)	**134**	135
Deferred consideration in relation to ChemTex acquisition (see Note 5g)	**–**	88
Contract liabilities	**3,614**	–
Deferred grant income	**14**	–
Others	**–**	250
Total other non-current liabilities	**4,714**	2,619

34. Trade and other payables

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Trade payables	**3,321**	4,090
Payables to tax authorities	**375**	1,167
Other payables	**1,626**	3,014
Total trade and other payables	**5,322**	8,271

Trade payables principally comprize amounts outstanding for trade purchases and ongoing costs. Other payables relate to employee-related expenses, utilities and other overhead costs. Typically, no interest is charged on the trade payables. The Group has financial risk management policies in place to ensure that all payables are paid within the pre-agreed credit terms.

The directors consider that the carrying amount of trade payables approximates to their fair value.

35. Accrued liabilities

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Costs of goods sold	**875**	1,328
Personnel expenses	**1,737**	1,525
Other operating expenses	**2,366**	533
Total accrued liabilities	**4,978**	3,386

36. Deferred revenue

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Contract liabilities	**1,176**	1,000
Prepayments for unshipped goods	**94**	–
Deferred grant income	**15**	4
Total deferred revenue	**1,285**	1,004

37. Contract liabilities

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000	As at January 1, 2021 US$'000
Exclusivity agreements	**1,832**	–	–
Research and development services	**2,958**	1,000	–
Total contract liabilities	**4,790**	1,000	–
Current liabilities (Note 36)	**1,176**	1,000	–
Non-current liabilities (Note 33)	**3,614**	–	–
Total contract liabilities	**4,790**	1,000	–

Revenue relating to both exclusivity and research and development services is recognized over time although the customer pays up-front in full for these services. A contract liability is recognized for revenue relating to the services at the time of the initial sales transaction and is released over the service period.

In the reporting year ended December 31, 2021, the Group received a US$ 1 million prepayment for research and development services. The Group is expected to complete its obligations in the reporting year ended December 31, 2024. In 2022, the Group entered into an agreement to grant exclusivity to a customer worth US$2 million and research and development services worth a further US$2 million. The customer has prepaid, and revenue recognition is spread over four reporting periods starting in July 2022 and ending June 2026.

The following table shows how much of the revenue recognized in the current reporting period relates to brought forward contract liabilities.

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Exclusivity agreements	**–**	–
Research and development services	**–**	–
Total revenue recognized from contract liabilities	**–**	–

38. Other current liabilities

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Deferred consideration in relation to acquisitions (Note 5g)	**92**	5,995
Deferred consideration in relation to share-based payments (Note 27)	**–**	74
Call option derivative liability	**686**	–
Other current liabilities	**778**	6,069

Deferred consideration

As more fully described in Note 5, the Company settled a total of US$5.5 million of deferred consideration relating to the acquisition of RAS AG and Life Materials by way of cash and share issuance. A further settlement of deferred consideration of US$187,000 in cash payments related to the ChemTex acquisition in 2017.

Call option derivative liability

As described in Note 5b, HeiQ AeoniQ GmbH's minority shareholder Hugo Boss AG has the contractual right to acquire a further 5% shareholding in HeiQ AeoniQ GmbH for a call option exercise price of €10,000,000 (approximately US$10,657,000) which expires on December 31, 2023.

The Group has valued the option at initial recognition at US$1,097,000 based on the Black-Scholes model. As at December 31, 2022, a liability of US$686,000 was recognized with a corresponding US$371,000 debit entry to profit and loss and a US$40,000 charge to currency translation reserve. The inputs into the Black-Scholes model are as follows:

	As at December 31, 2022
Weighted average share price (€)	**4,326.68**
Weighted average exercise price (€)	**5,714.29**
Expected volatility	**44.7%**
Expected life	**1 year**
Risk-free rate	**1.0%**
Expected dividend yield	**0%**

39. Contingent assets and liabilities

On October 10, 2022 the Group announced that it has filed a complaint in the United States District Court for the Western District Of North Carolina, Charlotte Division, against ICP Industrial Inc, for breaching its Exclusive Agreement terms. Because of the claimed contract breach, the Group has not recognized any income or assets from the contract. Within the same legal proceeding, ICP Industrial Inc, has filed a counter claim against the Group. Although the Group is confident in its legal position, the outcome of the legal proceedings as well as the court-mandated mediation remains uncertain. Therefore, while a future economic benefit is expected, it can not be reliably quantified at this point in time and could bear the risk of prejudice given the ongoing legal proceedings.

40. Provisions

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000
Legal/Compliance provision	**339**	–
Total provisions	**339**	–
Current liability	**339**	–
Non-current liability	**–**	–
	339	–

This provision is reported in Note 35 as Accrued liabilities – Other operating expenses.

	Legal/ Compliance provision US$'000	Total US$'000
Balance at January 1, 2021	–	–
Additional provision in the year	–	–
Utilization of provision	–	–
Exchange difference	–	–
Balance as at December 31, 2021	–	–
Additional provision in the year	339	339
Utilization of provision	–	–
Exchange difference	–	–
Balance as at December 31, 2022	**339**	**339**

The Group was contacted by the United States Environmental Protection Agency ("EPA") in connection with potential alleged violations of the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA") pertaining to alleged mislabelling. As at December 31, 2022, the Company has assessed the claim and made a provision for US$339,000 (December 31, 2021: US$nil) which was paid in May 2023.

41. Fair value and financial instruments

a) Fair value

The fair value of an asset or liability is the price that would be received to sell that asset or paid to transfer that liability in an orderly transaction occurring in the principal market (or most advantageous market in the absence of a principal market) for such asset or liability. In estimating fair value, the Directors utilize valuation techniques that are consistent with the market approach, the income approach and/or the cost approach. Such valuation techniques are consistently applied. Inputs to valuation techniques include the assumptions that market participants would use in pricing an asset or liability. IFRS 13 "Fair Value Measurement" establishes a fair value hierarchy for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is defined as follows:

Level 1: Inputs are unadjusted, quoted prices in active markets for identical assets at the measurement date.

Level 2: Inputs (other than quoted prices included in Level 1) can include the following:
- observable prices in active markets for similar assets;
- prices for identical assets in markets that are not active;
- directly observable market inputs for substantially the full term of the asset; and
- market inputs that are not directly observable but are derived from or corroborated by observable market data.

Level 3: Unobservable inputs which reflect the Directors' best estimates of what market participants would use in pricing the asset at the measurement date.

41. Fair value and financial instruments continued

We have not identified any financial instruments measured at fair value for the years ended December 31, 2021 and December 31, 2022.

There were no transfers between fair value levels during the year ended December 31, 2022 (2021: US$nil).

b) Financial instruments

For trade receivables, the Group applies the simplified approach permitted by IFRS 9 “Financial Instruments”, which requires expected lifetime losses to be recognized from initial recognition of the receivables.

Financial liabilities are initially measured at fair value and subsequently measured at amortized cost.

The Group is not a financial institution. The Group does not apply hedge accounting and its customers are considered creditworthy and in general pay consistently within agreed payments terms. In 2022, few customers have shown delays in payment which are closely monitored.

A classification of the Group’s financial instruments is included in the table below. These financial instruments are held at amortized cost which is estimated to be equal to fair value.

Financial instruments	**As at December 31, 2022 US$’000**	As at December 31, 2021 US$’000 *(restated)*
Cash and cash equivalents	**8,488**	14,560
Trade receivables	**6,487**	14,656
Accrued income and other receivables	**3,239**	2,824
Trade and other payables	**(5,322)**	(8,271)
Accrued liabilities	**(4,978)**	(3,386)
Deferred consideration	**(92)**	(6,158)
Call option derivative liability	**(686)**	–
Borrowings held at amortized cost	**(4,338)**	(2,763)
Lease liabilities held at present value of lease payments	**(7,823)**	(8,114)
Total financial instruments	**(5,025)**	3,348

42. Financial risk management

For the purposes of capital management, capital includes issued capital and all other equity reserves attributable to the equity holders of the Company, as well as debt. The primary objective of the Directors’ capital management is to ensure that the Group maintains a strong credit rating and healthy capital ratios in order to support its business and maximize shareholder value.

To maintain or adjust the capital structure, the Directors may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares. No changes were made in the objectives, policies or processes during the year.

The Directors manage the Group’s capital structure and adjust it in light of changes in economic conditions and the requirements of the financial covenants. The Group includes in its net debt, interest-bearing loans, lease liabilities and borrowings, trade and other payables, less cash and short-term deposits.

The Group’s principal financial liabilities comprize of borrowings and trade and other payables, which it uses primarily to finance and financially guarantee its operations.

The Group’s principal financial assets include cash and cash equivalents and trade and other receivables derived from its operations.

a. Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates will affect the Group’s income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the returns.

b. Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. As the Group’s borrowings are either on fixed interest terms or interest-free, the Group is not subject to significant interest rate risk.

42. Financial risk management continued

c. Credit risk

Credit risk is the risk that a customer or counterparty to a financial instrument will not meet its obligations under a contract and arises primarily from the Group's cash in banks and trade receivables.

The Company considers the credit risk in relation to its cash holdings is low because the counterparties are banks with high credit ratings.

Trade receivables are due from customers and collectability is dependent on the financial condition of each individual company as well as the general economic conditions of the industry. The Directors review the financial condition of customers prior to extending credit and generally do not require collateral in support of the Group's trade receivables. The majority of trade receivables are current or overdue for less than 30 days and the Directors believe these receivables are collectible. Amounts overdue longer than 120 days relate to a limited number of customers with a long trading history. Collection of these receivables is expected in the course of the year 2023. For doubtful accounts, the Group calculates an expected credit loss provision which is disclosed in Note 23.

As at December 31, 2022, the Group had one customer that individually accounted for more than 10% of total receivables, totaling 29% of total trade receivables (2021: two customers that individually accounted for more than 10% of total receivables, totaling 36.4%).

In order to minimize credit risk, the Group has adopted a policy of only dealing with creditworthy counterparties and obtaining sufficient collateral, where appropriate, as a means of mitigating the risk of financial loss from defaults. The credit rating information is supplied by independent rating agencies where available and, if not available, the Group uses other publicly available financial information and its own trading records to rate its major customers. The Group's exposure and the credit ratings of its counterparties are continuously monitored and the aggregate value of transactions concluded is spread amongst approved counterparties.

Credit approvals and other monitoring procedures are also in place to ensure that follow-up action is taken to recover overdue debts. Furthermore, the Group reviews the recoverable amount of each trade debt and debt investment on an individual basis at the end of the reporting period to ensure that adequate loss allowance is made for irrecoverable amounts. In this regard, the directors of the Company consider that the Group's credit risk is significantly reduced. Trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. Ongoing credit evaluation is performed on the financial condition of accounts receivable and, where appropriate, credit guarantee insurance cover is purchased.

d. Foreign currency risk

Foreign currency risk is the risk that the fair value or future cash flows of an exposure will fluctuate due to changes in foreign exchange rates. The Group's exposure to the risk of changes in foreign exchange rates relates primarily to its financing activities (when financial liabilities and cash are denominated other than in a company's functional currency).

Most of the Group's transactions are carried out in US Dollars ($). Foreign currency risk is monitored closely on an ongoing basis to ensure that the net exposure is at an acceptable level.

The Group maintains a natural hedge whenever possible, by matching the cash inflows (revenue stream) and cash outflows used for purposes such as capital and operational expenditure in the respective currencies. The Group's net exposure to foreign exchange risk was as follows:

	Functional currency					
As at December 31, 2022	AUD US$'000	EUR US$'000	GBP US$'000	US$ US$'000	Others US$'000	Total US$'000
Financial assets denominated in $	19	92	206	6,771	3	7,091
Financial liabilities denominated in $	–	–	–	–	–	–
Net foreign currency exposure	**19**	**92**	**206**	**6,771**	**3**	**7,091**

42. Financial risk management continued

As at December 31, 2021	Functional currency					
	AUD US$'000 (restated)	EUR US$'000 (restated)	GBP US$'000 (restated)	US$ US$'000 (restated)	Others US$'000 (restated)	Total US$'000 (restated)
Financial assets denominated in $	115	375	284	11,804	622	13,200
Financial liabilities denominated in $	(10)	(1,717)	(475)	(2,226)	(55)	(4,483)
Net foreign currency exposure	**105**	**(1,342)**	**(191)**	**9,578**	**567**	**8,717**

Foreign currency sensitivity analysis:
The following tables demonstrate the sensitivity to a reasonably possible change in foreign currency exchange rates, with all other variables held constant.

The impact on the Group's profit before tax is due to changes in the fair value of monetary assets and liabilities. The Group's exposure to foreign currency changes for all other currencies is not material.

A 10 per cent. movement in each of the Australian dollar (AUD), euro (EUR), British pound (GBP) and US dollar ($) would increase/(decrease) net assets by the amounts shown below. This analysis assumes that all other variables, in particular interest rates, remain constant.

As at December 31, 2022	**AUD US$'000**	**EUR US$'000**	**GBP US$'000**	**US$ US$'000**	**Others US$'000**
Effect on net assets:					
Strengthened by 10%	**2**	**9**	**21**	**677**	**–**
Weakened by 10%	**(2)**	**(9)**	**(21)**	**(677)**	**–**

As at December 31, 2021	AUD US$'000	EUR US$'000	GBP US$'000	US$ US$'000	Others US$'000
Effect on net assets:					
Strengthened by 10%	11	(134)	(19)	958	57
Weakened by 10%	(11)	134	19	(958)	(57)

e. Liquidity risk
Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they are due. The Directors manage this risk by:

- maintaining adequate cash reserves through the use of the Group's cash from operations and bank borrowings as well as overdraft facilities; and
- continuously monitoring projected and actual cash flows to ensure the Group maintains an appropriate amount of liquidity.

Overview of financing facilities
The following tables detail the Group's remaining contractual maturity for financial liabilities with agreed repayment periods. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows.

Year ended December 31, 2022	**Less than 1 year US$'000**	**2 to 5 years US$'000**	**> 5 years US$'000**	**Total US$'000**
Trade and other payables	5,322	–	–	5,322
Borrowings held at amortized cost	2,893	1,029	416	4,338
Leases (gross cash flows)	1,302	3,813	3,387	8,502
Other liabilities	5,290	–	–	5,290
As at December 31, 2022	**14,807**	**4,842**	**3,803**	**23,453**

42. Financial risk management continued

Year ended December 31, 2021	Less than 1 year US$'000 (restated)	2 to 5 years US$'000 (restated)	> 5 years US$'000 (restated)	Total US$'000 (restated)
Trade and other payables	8,271	–	–	8,271
Borrowings	1,157	951	655	2,763
Leases (gross cash flows)	959	3,253	4,905	9,117
Other liabilities	3,435	–	88	3,524
As at December 31, 2021	**13,822**	**4,204**	**5,648**	**23,674**

Unsecured bank overdraft facility

Unsecured bank overdraft facility	**As at December 31, 2022 US$'000**	As at December 31, 2021 US$'000 (restated)
Amount used	**2,790**	–
Amount unused	**6,861**	9,329
Total	**9,651**	9,329

The bank overdraft facilities are reviewed at least annually.

f. Capital risk management

The Group manages its capital to ensure that entities in the Group will be able to continue as going concerns while maximising the return to shareholders through the optimization of the debt and equity balance. The Group's overall strategy remains unchanged from 2021.

The capital structure of the Group consists of equity and liabilities of the Group. The Group intends to keep debt low to minimize the interest rate impact.

The Group is not subject to any externally imposed capital requirements.

The Directors review the capital structure on a semi-annual basis based on the equity ratio and total borrowings. The equity ratio at December 31, 2022 is 57 per cent (see below).

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Equity	**40,339**	59,535
Total equity and liabilities	**71,143**	94,144
Equity ratio	**57%**	63%

43. Notes to the statements of cash flows

Non-cash transactions

Certain shares were issued during the year for a non-cash consideration as described in Note 5g.

Additions to buildings and land during the year amounting to US$1,862,000 million were financed by share issue (2021: nil).

Gains and losses on disposal of assets

Gains and losses on disposal of assets	Note	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 *(restated)*
Gain on disposal of property, plant and equipment	10	**(21)**	(54)
Loss on disposal of property, plant and equipment	13	**16**	20
Net loss on disposal of assets		**(5)**	(34)

Changes in liabilities arising from financing activities

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Group's consolidated cash flow statement as cash flows from financing activities.

	Leases	Borrowings	Total
Balance at January 1, 2021	(2,652)	(1,573)	(4,225)
Cash flows	662	382	1,044
Assumed on acquisitions of subsidiaries	(422)	(1,792)	(2,214)
New lease agreements	(5,700)	–	(5,700)
Exchange differences	(2)	221	219
Balance at December 31, 2021	**(8,114)**	**(2,762)**	**(10,876)**
Cash flows	992	(2,561)	(1,569)
New lease agreements	(2,181)	–	(2,181)
Revaluation of lease agreements	574	–	574
Disposal due to acquisitions	490	–	490
Loans waived by creditors	–	764	764
Exchange differences	416	221	637
Balance at December 31, 2022	**(7,823)**	**(4,338)**	**(12,161)**

Working capital reconciliation:

The Company defines working capital as trade receivables, other receivables and prepayments less trade and other payables, accrued liabilities, deferred revenue and non-current liabilities excluding pension liabilities.

Year ended December 31, 2022	Opening balances US$'000	Assumed on acquisition of assets US$'000	Change in balance US$'000	Closing balances US$'000
Inventories		**–**	**(602)**	**13,168**
Trade receivables	**–**	**–**	**(8,169)**	**6,487**
Other receivables and prepayments	**3,876**	**–**	**386**	**4,262**
Trade and other receivables and prepayments	**18,532**	**–**	**(7,783)**	**10,749**
Trade and other payables	**8,27**	**–**	**(2,949)**	**5,322**
Accrued liabilities		**9**	**1,583**	**4,978**
Deferred revenue incl. non-current contract liabilities	**1,004**	**–**	**3,909**	**4,913**
Trade and other payables, accrued liabilities and deferred revenue	**12,661**	**9**	**2,543**	**15,213**

Notes to the consolidated financial statements continued

For the year ended December 31, 2022

43. Notes to the statements of cash flows continued

Year ended December 31, 2021	Opening balances US$'000 *(restated)*	Assumed on acquisition subsidiaries US$'000 *(restated)*	Change in balance US$'000 *(restated)*	Closing balances US$'000 *(restated)*
Inventories	13,540	2,258	(2,028)	13,770
Trade receivables	10,080	3,538	1,038	14,656
Other receivables and prepayments	2,609	–	1,267	3,876
Trade and other receivables and prepayments	12,689	3,538	2,305	18,532
Trade and other payables	5,815	2,497	(41)	8,271
Accrued liabilities	2,168	–	1,218	3,386
Deferred revenue	–	–	1,004	1,004
Trade and other payables, accrued liabilities and deferred revenue	7,983	2,497	2,181	12,661

Consideration for acquisition of businesses

Year ended December 31, 2022	US$'000
Consideration payment for acquisition of Life Materials Technologies Ltd	**1,400**
Consideration payment for acquisition of ChemTex assets	**187**
Net consideration payment for acquisitions of businesses and assets	**1,587**

Year ended December 31, 2021	US$'000
Consideration payment for acquisition of Chrisal NV	6,054
Consideration payment for acquisition of RAS AG	1,482
Consideration payment for acquisition of Life Materials Technologies Ltd	2,550
Consideration payment for acquisition of ChemTex assets	908
Cash assumed on acquisition of Chrisal NV	(1,773)
Cash assumed on acquisition of RAS AG	(291)
Cash assumed on acquisition of Life Material Technologies Ltd	(73)
Net consideration payment for acquisitions of businesses	8,857

44. Related party transactions

HeiQ Materials AG supplied materials and services totaling US$46,000 to ECSA, a company controlled by a director of HeiQ Materials AG, in the year ended December 31, 2022 (2021: US$32,000). HeiQ Materials AG in turn supplied US$88,000 in 2021 (2022: US$nil). The transactions were made on terms equivalent to those in arm's length transactions.

There are no loans outstanding with related parties.

Remuneration of key management personnel

The remuneration of the directors, who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24 Related Party Disclosures.

	As at December 31, 2022 US$'000	As at December 31, 2021 US$'000 (restated)
Short-term employee benefits	**738**	836
Post-employment benefits	**35**	32
Cash remuneration of key management personnel	**773**	868
Share-based payment expense (income)	**(58)**	170
Total remuneration of key management personnel	**715**	1,038

The cash remuneration for the reporting year ended December 31, 2022 is equivalent to the total compensation of CHF 477,626 and GBP 220,000 (2021: CHF 568,878 and GBP 220,000) which are presented in the annual report on Director's remuneration.

45. Material subsequent events

On January 12, 2023, HeiQ Plc, completed the acquisition of the entire issued share capital of Tarn-Pure Holdings Ltd ("Tarn-Pure"). Tarn-Pure is a UK-based intellectual property company holding critical EU and UK regulatory registrations to sell elemental copper and elemental silver for use in disinfecting hygiene applications. To acquire Tarn-Pure, HeiQ have paid the vendors £530,000 (approximately US$621,000) in cash with an additional £317,000 (approximately US$372,000) to be satisfied through the issuance of 455,435 new ordinary shares of 30p each in the Company (the "Consideration Shares"), issued at a price of 69.6p per share resulting in a total consideration of £847,000 (approximately US$993,000). The purchase price allocation for this acquisition is incomplete. Impacts on this acquisition and the results will be included in the 2023 consolidated financial statements.

As communicated on July 06, 2023, HeiQ Plc sold a 1.5% minority interest in HeiQ AeoniQ GmbH to MAS Holdings for US$1.5 million. It was also agreed that a further 1% shareholding will be sold to MAS Holdings for US$1 million subject to the achievement of a mutually agreed milestone.

46. Ultimate controlling party

As at December 31, 2022, the Company did not have any single identifiable controlling party.

Company statement of financial position (registered company number: 09040064)

As at December 31, 2022

	Note	As at December 31, 2022 £'000	As at December 31, 2021 £'000
ASSETS			
Non-current assets			
Investments	4	**42,758**	101,484
Amounts due from subsidiaries	5	**9,000**	18,000
		51,758	119,484
Current assets			
Trade and other receivables	7	**798**	377
Cash and bank balances	6	**306**	1,203
		1,104	1,580
TOTAL ASSETS		**52,862**	121,064
LIABILITIES			
Current liabilities			
Trade and other payables	8	**(204)**	(354)
		(204)	(354)
NET ASSETS		**52,658**	120,710
EQUITY			
Share capital	9	**42,025**	39,175
Share premium account	9	**114,663**	109,460
Share-based payment reserve	11	**340**	346
Accumulated losses		**(104,370)**	(28,271)
TOTAL EQUITY		**52,658**	120,710

The Company has taken advantage of Section 408 of the Companies Act 2006 and has not included a Profit and Loss account in these separate financial statements. The loss attributable to members of the Company for the year ended December 31, 2022 is £76,099,000 (2021: loss of £26,801,000).

The notes on pages 145 to 151 form an integral part of these Financial Statements. The Financial Statements were authorized for issue by the board of Directors on October 26, 2023 and were signed on its behalf by.

Xaver Hangartner
Director

Company statement of changes in equity

For the year ended December 31, 2022

	Share capital £'000	Share premium account £'000	Share-based payment reserve £'000	Accumulated losses £'000	Total £'000
For the year ended December 31, 2021:					
Balance as at January 1, 2021	37,767	102,536	38	(1,470)	138,871
Loss for the year	–	–	–	(26,801)	(26,801)
Issue of shares	1,408	6,924	–	–	8,332
Share-based payment charges	–	–	308	–	308
Transactions with owners	1,408	6,924	308	–	8,640
Balance as at December 31, 2021	**39,175**	**109,460**	**346**	**(28,271)**	**120,710**
For the year ended December 31, 2022:					
Loss for the year	–	–	–	(76,099)	(76,099)
Issue of shares	2,850	5,203	–	–	8,053
Share-based payment charges	–	–	(6)	–	(6)
Transactions with owners	2,850	5,203	(6)	–	8,047
Balance as at December 31, 2022	**42,025**	**114,663**	**340**	**(104,370)**	**52,658**

Company statement of cash flows

For the year ended December 31, 2022

Cash flows from operating activities	Year ended December 31, 2022 £'000	Year ended December 31, 2021 £'000
Loss before taxation	**(76,099)**	(26,801)
Cash flow from operations reconciliation:		
Net finance income	**(377)**	(375)
Impairment provision	**67,180**	26,821
Working capital adjustments:		
(Increase) in trade and other receivables	**8,580**	(186)
Increase/(decrease) in trade and other payables	**(95)**	(184)
Cash used in operations	**(811)**	(726)
Net cash used in operating activities	**(811)**	(726)
Cash flows from investing activities		
Interest received	**377**	375
Consideration payment for acquisitions of businesses	**(463)**	–
Net cash used in investing activities	**(86)**	375
Cash flows from financing activities		
Net cash from financing activities	**–**	–
Net increase (decrease) in cash and cash equivalents	**(897)**	(351)
Cash and cash equivalents – beginning of the year	**1,203**	1,554
Cash and cash equivalents – end of the year	**306**	1,203

Notes to the Company financial statements

For the year ended December 31, 2022

1. General information

The Company was incorporated on May 14, 2014 as Auctus Growth Limited, in England and Wales under the Companies Act 2006 with company number 09040064. The Company was re-registered as a public company on July 24, 2014. On December 4, 2020, following a reverse takeover of Swiss based HeiQ Materials AG, the Company's name was changed to HeiQ Plc. The Company's registered office is 5th Floor, 15 Whitehall, London, SW1A 2DD.

The Company's enlarged share capital is admitted to the standard segment of the Official List and trading on the London Stock Exchange's Main Market under the ticker 'HEIQ'. The ISIN of the Ordinary Shares is GB00BN2CJ299 and the SEDOL Code is BN2CJ29.

The principal activity of the Company is that of a holding company for the Group, as well as performing all administrative, corporate finance, strategic and governance functions of the Group.

The Company's financial statements are prepared in Pounds Sterling, which is the presentational currency for the financial statements.

2. Summary of significant accounting policies

a. Basis of preparation

These Financial Statements have been prepared in accordance with UK adopted international accounting standards applying the FRS101 Reduced Disclosure Framework.

These financial statements are prepared under the historical cost convention. Historical cost is generally based on the fair value of the consideration given in exchange of assets. The principal accounting policies are set out below.

The Company also produces consolidated accounts which include the results of the Company.

The financial statements have been prepared on a going concern basis which contemplates the continuity of normal business activities and the realization of assets and the settlement of liabilities in the ordinary course of business. The Directors have assessed both the Company's and the Group's ability to continue in operational existence for the foreseeable future. The Company has prepared forecasts and projections which reflect the expected trading performance of the Company and the Group on the basis of best estimates of management using current knowledge and expectations of trading performance. As at December 31, 2022, the Company had £306,000 (2021: £1,203,000) in cash, which is considered sufficient for its present needs. As described in Note 3b to the consolidated financial statements, there is material uncertainty at the Group level that casts significant doubt upon the company's ability to continue as a going concern and that, therefore, the company may be unable to realize its assets and discharge its liabilities in the normal course of business.

Nevertheless, after making enquiries and considering the uncertainties described above, the Directors consider there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable, as well as to fund the Company's future operating expenses. The going concern basis preparation is therefore considered to be appropriate in preparing these financial statements.

b. Investments

Fixed asset investments are carried at cost less, where appropriate, any provision for impairment.

c. Loans to subsidiaries

Loans to subsidiaries are measured at the present value of the future cash payments discounted at a market rate of interest for a similar debt instrument unless such amounts are repayable on demand. The present value of loans that are repayable on demand is equal to the undiscounted cash amount payable, reflecting the Company's right to demand immediate repayment.

d. Foreign currencies

The company's equity is raised in Pound Sterling (£) which is the functional and presentational currency of the Company, and all values are rounded to the nearest thousand pounds except where otherwise indicated. Transactions in foreign currencies are recorded using the rate of exchange ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated using the contracted rate or the rate of exchange ruling at the balance sheet date and the gains or losses on translation are included in the profit and loss account.

2. Summary of significant accounting policies continued

e. Cash and cash equivalents

Cash and cash equivalents comprize cash in hand, bank balances, deposits with financial institutions and short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

f. Trade and other receivables

Trade and other receivables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less provision for impairment.

g. Income taxes

The charge for taxation is based on the profit/loss for the year and takes into account taxation deferred because of timing differences between the treatment of certain items for taxation and accounting purposes.

Deferred tax is provided on timing differences which arise from the inclusion of income and expenses in tax assessments in periods different from those in which they are recognized in the financial statements. The following timing differences are not provided for: differences between accumulated depreciation and tax allowances for the cost of a fixed asset if and when all conditions for retaining the tax allowances have been met; and differences relating to investments in subsidiaries, to the extent that it is not probable that they will reverse in the foreseeable future and the reporting entity is able to control the reversal of the timing difference. Deferred tax is not recognized on permanent differences arising because certain types of income or expense are non-taxable or are disallowable for tax or because certain tax charges or allowances are greater or smaller than the corresponding income or expense.

h. Share-based payment arrangements

Equity-settled share-based payments to employees are measured at the fair value of the equity instruments at the grant date. Equity-settled share-based payments to non-employees are measured at the fair value of services received, or if this cannot be measured, at the fair value of the equity instruments granted at the date that the Company obtains the goods or counterparty renders the service. Details regarding the determination of the fair value of equity-settled share-based transactions are set out in Note 27 to the consolidated financial statements.

The fair vale determined at the grant date of the equity-settled share-based payments is recognized on a straight-line basis over the vesting period, based on the Company's estimate of equity instruments that will eventually vest, with a corresponding increase in equity. Where the conditions are non-vesting, the expense and equity reserve arising from share-based payment transactions is recognized in full immediately on grant.

Where the Company grants an equity-settled share-based payment award to employees of a subsidiary, then the Company classifies the transaction as equity-settled in its separate financial statements. The Company recognizes a capital contribution from the subsidiary as a credit to the share-based payment reserve and a corresponding increase in its investment in the subsidiary.

At the end of each reporting period, the Group revises its estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognized in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to other reserves.

i. Trade and other payables

Trade and other payables are initially recognized at fair value and thereafter stated at amortized cost using the effective interest method unless the effect of discounting would be immaterial, in which case they are stated at cost.

j. Share capital

Proceeds from issuance of ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of new ordinary shares or options are shown in equity as a deduction from the proceeds.

k. Financial instruments

Financial instruments are recognized in the statements of financial position when the Company has become a party to the contractual provisions of the instruments.

Financial instruments are classified as liabilities or equity in accordance with the substance of the contractual arrangement. Interest, dividends, gains and losses relating to a financial instrument classified as a liability are reported as an expense or income. Distributions to holders of financial instruments classified as equity are charged directly to equity.

Financial instruments are offset when the Company has a legally enforceable right to offset and intends to settle either on a net basis or to realize the asset and settle the liability simultaneously.

2. Summary of significant accounting policies continued

A financial instrument is recognized initially at its fair value plus, in the case of a financial instrument not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial instrument.

Financial instruments recognized in the statements of financial position are disclosed in the individual policy statement associated with each item.

(i) Financial liabilities
Financial liabilities are recognized when, and only when, the Company becomes a party to the contractual provisions of the financial instrument.

All financial liabilities are recognized initially at fair value plus directly attributable transaction costs and subsequently measured at amortized cost using the effective interest method other than those categorized as fair value through profit or loss.

Fair value through profit or loss category comprizes financial liabilities that are either held for trading or are designated to eliminate or significantly reduce a measurement or recognition inconsistency that would otherwise arise. Derivatives are also classified as held for trading unless they are designated as hedges. There were no financial liabilities classified under this category.

A financial liability is derecognized when the obligation under the liability is discharged, cancelled or expires. When an existing financial liability is replaced by another from the same party on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the profit or loss.

(ii) Equity instruments
Ordinary shares are classified as equity. Dividends on ordinary shares are recognized as liabilities when approved for appropriation.

(iii) Other financial instruments
Other financial instruments not meeting the definition of Basic Financial Instruments are recognized initially at fair value. Subsequent to initial recognition other financial instruments are measured at fair value with changes recognized in profit or loss except investments in equity instruments that are not publicly traded and whose fair value cannot otherwise be measured reliably shall be measured at cost less impairment.

3. Critical accounting judgments and key sources of estimation uncertainty

In the application of the Company's accounting policies, which are described in Note 2, management is required to make judgments, estimates and assumptions about the carrying values of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

Critical accounting judgments
There were no critical accounting judgements impacting the Company's standalone financial statements 2022 and 2021. Critical accounting judgments affecting the Group are discussed in Note 4 to the consolidated financial statements.

Key sources of estimate uncertainty
Impairment of amounts due from subsidiaries
As described in Note 2 to the financial statements, fixed asset investments are stated at the lower of cost less provision for impairment. The present value of loans to subsidiaries that are repayable on demand is equal to the undiscounted cash amount payable reflecting the Company's right to demand immediate repayment.

At each reporting date fixed asset investments and loans made to subsidiaries are reviewed to determine whether there is any indication that those assets have suffered an impairment loss. If there is an indication of possible impairment, the recoverable amount of any affected asset is estimated and compared with its carrying amount. If estimated recoverable amount is lower, the carrying amount is reduced to its estimated recoverable amount, and an impairment loss is recognized immediately in profit or loss.

Notes to the Company financial statements continued

For the year ended December 31, 2022

3. Critical accounting judgments and key sources of estimation uncertainty continued

The Directors have carried out an impairment test on the value of the loans due from subsidiaries and have concluded that an impairment provision of £9,000,000 (2021: nil) is necessary to reflect the uncertainty around financing of the Group and Company as mentioned in Note 3b to the consolidated financial statements and Note 2a to the Company Financial Statements, respectively.

Impairment of fixed asset investments

The Directors have also carried out an impairment test on the value of the Company's fixed asset investments and considered whether there are any indicators of impairment from external and internal sources of information, including the fact that the market capitalization of the Company has fallen below the net carrying value of such investments which would indicate that the carrying value may have been impaired and have concluded that an impairment provision of £94.0m (2021: £26.8m) is required to write down these amounts to their estimated recoverable amount.

4. Investments

Investments in subsidiary undertakings	As at December 31, 2022 £'000	As at December 31, 2021 £'000
Balance brought forward	**101,484**	119,609
Additions	**8,454**	8,696
Impairment provision charge	**(67,180)**	(26,821)
Balance at end of year	**42,758**	101,484

Details of the Company's principal subsidiaries as at December 31, 2022 are set out in Note 6 to the consolidated financial statements. The Company's investments in subsidiaries are carried at cost less impairment.

The Directors have concluded that the significant devaluation of the Group represents an indicator of impairment as at December 31, 2022. Therefore, the Directors performed an impairment test of the Group and valued the Company's investment in its subsidiaries at £51,758,000 (2021: £119,484,000 valued based on market capitalization). The carrying value of its investments in subsidiaries was £136,759,000 (2021: £128,305,000) before impairment provision charges. The amounts due from subsidiaries as at December 31, 2022 was £9,000,000 (2021: £18,000,000).

The Company has therefore made additional provision for an impairment of £94,001,000 (2021: £26,821,000) against the carrying value of the Company's investments in subsidiaries to reduce such value to £42,758,000 (2021: £101,484,000).

Sensitivity

The calculation of the market capitalization of £77,045,000 is based on the Company's share price of 55.0 pence as at 31 December 2022. Due to the volatility of the share price, a decrease of 75% in the share price to 13.8 pence is reasonably possible. A decrease in the share price of 75%, would result in a market capitalization of £19.3 million and an additional impairment loss of approximately £32.4 million.

5. Amounts due from subsidiaries

	As at December 31, 2022 £'000	As at December 31, 2021 £'000
Balance brought forward at beginning of year	**18,000**	18,000
Amounts advanced	**–**	–
Expected credit loss	**(9,000)**	–
Balance at end of year	**9,000**	18,000

The amounts due from subsidiaries are unsecured, yield 2.5% interest and are repayable on demand. Given the uncertainty described in the going concern review of the Group in Note 3b to the consolidated financial statements, the recoverability of the loan was reassessed. Due to the increased risk of default following the Group's recent performance, it was concluded that an expected credit loss of £9,000,000 is appropriate for the financial year ended December 31, 2022.

Sensitivity

The expected credit loss of £9,000,000 reflects 50% of the balance due. Had the Directors' assessment been that the whole £18,000,000 are not collectible, there would have been an additional expected credit loss of £9,000,000.

6. Cash and cash equivalents

	As at December 31, 2022 £'000	As at December 31, 2021 £'000
Bank balances	**306**	1,203
	306	1,203

7. Trade and other receivables

	As at December 31, 2021 £'000	As at December 31, 2020 £'000
Prepayments	**14**	108
Vat receivable	**12**	5
Other receivables from subsidiaries	**772**	264
	798	377

8. Trade and other payables

	As at December 31, 2022 £'000	As at December 31, 2021 £'000
Trade payables	**1**	16
Accruals	**203**	129
Taxes and social security	**–**	8
Deferred consideration	**–**	55
Other payables	**–**	145
	204	354

The directors consider that the carrying amounts of amounts falling due within one year approximate to their fair values.

Notes to the Company financial statements continued

For the year ended December 31, 2022

9. Share capital and share options

Share capital

Details of the Company's allotted, called-up and fully paid share capital are set out in Note 26 to the Consolidated Financial Statements.

Movements in the Company's share capital were as follows:

	Number of shares No.	Share capital £'000	Share premium £'000	Totals £'000
Balance as of January 1, 2021	125,891,904	37,767	102,536	140,303
Issue of shares to acquire Chrisal NV	1,101,928	331	1829	2,160
Issue of shares to acquire RAS AG	1,701,821	511	2837	3,348
Issue of shares to acquire Life Materials	1,887,883	566	2258	2,824
Balance as at December 31, 2021	130,583,536	39,175	109,460	148,635
Issue of shares to vendors of Life Materials (a)	347,552	104	347	451
Issue of shares as deferred consideration	3,461,615	1,039	2,233	3,272
Issue of shares Advisory Board	164,721	50	146	196
Issue of shares ChemTex Labs	2,176,884	653	967	1,620
Issue of shares Chrisal	3,348,164	1004	1510	2,514
Balance as at December 31, 2022	**140,082,472**	**42,025**	**114,663**	**156,688**

The par value of all shares is £0.30 (2021: £0.30). All shares in issue were allotted, called up and fully paid. The Ordinary shares of the Company carry one vote per share and an equal right to any dividends declared.

Share options

Details of the Company's share option scheme and options issued during the year are set out in Note 27 to the Consolidated Financial Statements.

10. Reserves

The share premium account represents the amount received on the issue of ordinary shares by the Company in excess of their nominal value and is non-distributable.

The share-based payment reserve arises from the requirement to value share options in existence at the year end at fair value (see Note 28 to the Consolidated Financial Statements).

11. Share-based payments

Details of the Company's share options are contained in Note 27 to the Consolidated Financial Statements.

12. Segment information

Operating segments are identified on the basis of internal reports about components of the Company that are regularly reviewed by the Board. Until its acquisition of HeiQ Materials AG on 7 December 2020, the Company was an investing company and did not trade. On the completion of the acquisition of HeiQ Materials AG and its subsidiaries, the Company became the holding company of the Group.

The Company has one segment, namely that of a parent company to its subsidiaries. Accordingly, no segmental analysis has been provided in these financial statements.

13. Employees

The average monthly number of employees including directors was as follows:

	Year ended December 31, 2022 No.	Year ended December 31, 2021 No.
Directors	**5**	5

14. Related party transactions

The only key management personnel of the Company are the Directors. Details of their remuneration are contained in Note 44 to the consolidated financial statements.

Details of amounts due between the Company and its subsidiaries are shown in Notes 5 above.

15. Subsequent events

The Group's share price as at April 30, 2023 closed at 20.2 pence followed by share suspension which will be in place until the consolidated financial statements have been published. Had this been the valuation as at 31 December 2022, market capitalization would have been £28,297,000.

Other disclosures in relation to events subsequent to December 31, 2022 are shown in Note 45 to the consolidated financial statements.

16. Ultimate controlling party

As at December 31, 2022, no one entity owns greater than 50% of the issued share capital. Therefore, the Company does not have an ultimate controlling party.

Company information

Directors
Carlo Centonze,
Chief Executive Officer

Xaver Hangartner,
Chief Financial Officer

Esther Dale-Kolb,
Non-Executive Chairwoman

Karen Brade,
Non-Executive Director

Benjamin Bergo,
Non-Executive Director

Company secretary
Ross Ainger

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