Itaconix

Polymers for Better Living™

Itaconix plc

Annual Report & Accounts 2021

Science and nature combine for

SUSTAINABLE LIVING

to satisfy the most demanding consumers

HIGHLIGHTS

OPERATIONAL HIGHLIGHTS

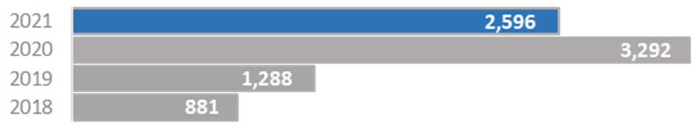
- Expanded commercial base with more uses in more brands, sold in more retail outlets.
- Revenues were lower in 2021 than 2020 due to order cycles from the stocking and rebalancing of customer inventories in response to the Covid-19 pandemic.
- Revenues from 2018 to 2021 grew at a compound annual growth rate of 43.4%.
- Fundraise with gross proceeds of $1.6m.

FINANCIAL HIGHLIGHTS

Itaconix plc (AIM: ITX) (OTC: ITXXF), the world leader in polymers of itaconic acid and its derivatives, announced final results for the year ended 31 December 2021.

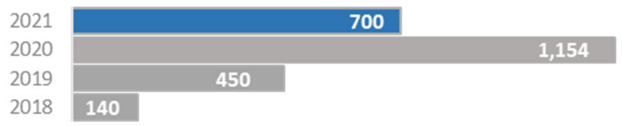
Revenues ($'000)

$2,596 -21.1%



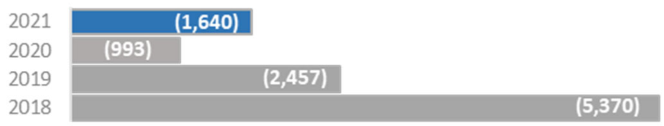
Gross profits ($'000)

$700 -39.3%



Adjusted EBITDA[1] ($'000)

$(1,640) -65.2%



Net loss ($'000)

$(455) +72.4%

Diluted loss per share (¢)

$(0.001) +80.0%

[1] Adjusted for interest, tax, depreciation, amortization, and exceptional items

Polymers for Better Living™

2021 was a year of marked and important progress for Itaconix. We retained our current customers, added new customers, found new applications for our products, expanded our technology platform, and built a broader base of recurring revenues.

These advances continue to strengthen our ability to contribute meaningfully to the decarbonization of consumer products. Our polymers' commercial base is now well-established, and they are currently used in over 130 consumer products. Our patent-protected processes, used to produce the plant-based polymers we sell, are unique and valuable. In simple terms: they use and sequester carbon dioxide. Through our large technology platform, we continue to monetize our intellectual property in three core areas: cleaning, hygiene, and beauty.

Our progress on these many fronts, however, did not translate into higher revenues and our financial results did not meet our plans for 2021. As detailed in our Chief Executive Officer's statement, cleaning customer ordering patterns in late 2020 and early 2021 responded to the Covid-19 pandemic, creating high demand and overstocking, followed in the middle of 2021 by rebalancing of inventories and consequently low order volumes. Although volumes did recover and are continuing to grow nicely, this temporary decline in cleaning revenues caused a 21.1% decline in revenues overall.

As our technology platform and polymers lead to new generations of more sustainable everyday products, our efforts are recognised by the London Stock Exchange. Itaconix was awarded the LSE's Green Economy Mark in May 2021, which identifies companies that are contributing to environmental objectives. We are very proud of this achievement, and this pride is shared by all our employees. I would like to extend special thanks to them for their valuable work and devotion to our mission of decarbonising the planet with proprietary plant-based products that enhance consumer products.

In 2021, we continued to strengthen the foundation of our business through new customers, applications, and products. This progress is already manifesting itself in the current financial year and we look forward to the rest of the year and beyond with continued confidence and optimism. Thank you to all our stakeholders for your ongoing support. Together we are making a real difference.

James Barber
Chairman

7 June 2022

Overview

Itaconix has a deep, diverse IP-protected technology platform that enables new generations of consumer products which are more environmentally sustainable without compromising on performance or cost. Our core business model is to use the competitive value of our technology platform to build a broad base of recurring revenues from brands that rely on our ingredients for the success of their products. We are currently focused on three key retail areas with large and growing market potential: cleaning, hygiene, and beauty.

We added major new customers and retained existing customers to expand our commercial base in 2021. With new successes across all applications in North American and Europe, our plant-based polymers are now essential ingredients in an estimated 130 brands around the world. Most of the largest brands that we work with are growing as they expand into more retailers. Brands that rely on our ingredients are found in many of the largest retail groups across North America and Europe.

2021 was a challenging year for translating this momentum in our customer base into growth in revenues. While our hygiene revenues grew substantially, lower cleaning and beauty sales resulted in a 21.1% decline in overall revenues. While we believe underlying consumer demand grew, customers ordered substantial volumes of our cleaning polymers in late 2020 and early 2021 to ensure supply during the Covid-19 pandemic and restock depleted retail shelves, then followed with lower monthly volumes from July through October 2021 as they rebalanced their inventories. Despite these months of lower volumes, we continued to add new customers and expand our base of recurring revenues as brands looked to us to improve the competitive position of their products with new performance and sustainability claims.

As we grow our customer base with our existing products, we are selectively reaching into and expanding our proprietary technology platform in response to new customer needs. We completed a production trial for our plant-based superabsorbent (SAP) in 2021 and supplied a customer with materials in early 2022 for an initial consumer product trial and testing. Additionally, we filed two patent applications for new plant-based ingredients. One is for a new biodegradable hair care ingredient that we expect to launch in 2022. The other is to increase the plant-based content in composites. This product is early stage and will take several years of further development and testing. We believe these initiatives increase our potential addressable market from $750 million to $2.3 billion, and that significant opportunity exists within our technology platform to further expand our addressable market.

We were extremely proud that our work at decarbonising everyday products is acknowledged by the London Stock Exchange, who awarded us its Green Economy Mark in May 2021 to recognise our contributions to the global green economy with over 95% of our 2021 revenues derived from plant-based products. The Green Mark, first introduced in 2019, was created to highlight companies and investment funds listed on all segments of the London Stock Exchange's Main Market and AIM, that are driving the global green economy. We are just starting to tap into the potential of our proprietary plant-based technologies to accelerate the transition of brands and consumers to a low carbon economy. The Green Economy Mark is an important recognition for our work and will support our efforts to communicate our green credentials to investors and other stakeholders. It is a real honour and achievement for Itaconix to be recognised as an early leader for the Mark in the Advanced Materials industry sector.

Funding

We continued to strengthen our balance sheet and broaden our shareholder base. In June 2021 we announced a successful placing to raise $1.6 million by way of direct subscription with a new institutional investor together with existing institutional shareholder, IP Group plc.

Recently, and after the reporting period, we announced the placement of new ordinary shares to raise approximately $0.4 million by way of a direct subscription with IP Group plc and our management. The proceeds of the fundraise are being used for general growth working capital, predominantly to strengthen finished goods inventories held in the EU to assure reliable and ready delivery times to our expanding base of EU customers.

Financial Overview

Revenues for the year were $2.6m, representing a compound annual growth rate of 43.4% over the last 4 years. These revenues were a 21.1% decrease year over year from 2020, mainly due to large stocking orders for our cleaning and beauty products in late 2020 combined with slow reorders in the middle of 2021. We believe this order pattern reflected customer and retailer uncertainty in managing inventories during the pandemic. We retained current customers and added new customers while underlying consumer demand remained strong.

Despite a rise in our operating expenses and raw material costs, we managed to maintain an overall gross margin of 27.0% (2020: 35.1%). The increase in operating expenses was mainly due to growing our executive team as we positioned the Company for broader revenue potential and growth from our proprietary technology platform. While these additional costs had a direct impact on adjusted EBITDA, we believe the operating losses of the business remain manageable and that development spending on new revenue potential will deliver attractive returns and profitability in the future.

Net cash balances as at year end were $0.7m. As noted above, the Group successfully completed a placing of $1.6m during the year.

Although the Company did not experience overall revenue growth in 2021, the Group is well positioned for its next phase of growth with an expanded customer base, a sizeable pipeline of customer projects, and key personnel in place.

Operating Review

Growing our customer base and developing new applications for our technology platform were essential in 2021. We were successful at retaining our current customers, adding significant new customers, and increasing our addressable market with new products and applications. This expansion in our customer base did not immediately translate into overall revenue growth due to the specific order cycle conditions described above. Overall revenues were $2.6m in 2021 compared to $3.3m in 2020 and $1.3m in 2019.

Cleaning

Cleaning revenues were $1.8 million in 2021 compared to $2.6 million in 2020, representing a 29.5% decline.

As previously discussed, orders were strong in late 2020 and early 2021 to ensure supply and build customer and retailer inventories. Volumes declined from July through October as customers and retailers adjusted their inventories as previous uncertainties around the Covid-19 pandemic receded. In addition, some customers delayed deliveries on their orders while they overcame supply disruptions for other needed detergent ingredients, such as surfactants.

We did add new brands to our profitable base of recurring revenues and made significant progress in establishing Itaconix® TSI™ 322 polymer as the new standard for performance, cost, and sustainability in non-phosphate dishwashing detergents. In early 2021, a major North American brand launched a new dishwashing detergent that drew attention to the potential to have high bio-based content without compromising on performance. By late 2021, we added two additional North American dishwashing detergent brands. We expect this momentum to continue into Europe in 2022. In September, we announced our first European order for Itaconix® TSI™ 322 with an established and well-respected European brand that is recognized by both the dishwashing detergent industry and consumers as a leader in product innovation, performance, and sustainability. The new product is expected to be on retail shelves in H2 2022.

We completed development of our new Itaconix® ONZ 075 product by combining the cleaning performance of our Itaconix® DSP 2K™ polymer with our odour neutralising technology. We are launching this product in 2022 for use in laundry applications.

Order volumes for our cleaning polymers recovered in late 2021 and have continued to grow in the first half of 2022.

Hygiene

Hygiene revenues were $0.5 million in 2021 compared to $0.3 million in 2020, representing a 70.2% increase.

Order volumes were particularly strong and ahead of expectations from new odour control customers and applications in North America, Europe, and Asia. We have placed an emphasis on expanding usage into new applications, including development work with a major North American pulp and paper company.

In homecare odour control, our ZINADOR™ polymers, sold through Croda the global specialty chemicals leader, continue to be used widely. Building on the progress we reported last year, demand for this product has continued to grow with expanding adoption in existing brands and initial usage by new brands. We continue to see increased focus on home odour control and growing demand.

In personal odour control, our VELAFRESH™ polymers are also continuing to gain important initial adoption as key ingredients in personal care and pet care. While volumes are not yet substantial, the ground is set for meaningful growth in the coming years.

As described above, we expanded our addressable market in hygiene applications with our new plant-based superabsorbent polymer (SAP), VELAFRESH® SAP80. The worldwide market for superabsorbent polymers was estimated at $9.0 billion in 2020 and is supplied almost entirely by fossil-based polymers due to the high cost or poor performance of current plant-based polymers. We believe that VELAFRESH® SAP80 offers a superior level of performance, cost, and availability for consumers that are seeking more sustainable hygiene products.

Although VELAFRESH® SAP80 revenues are not expected until 2023, we are achieving important milestones. We completed an initial trial to produce the polymer in 2021. In February this year, post the reporting period, we announced that we had supplied product from this first production trial for testing by a potential customer for possible use in baby diapers, feminine hygiene products, adult diapers, and industrial absorption products.

Beauty

Beauty revenues were $0.2 million in 2021 compared to $0.4 million in 2020, representing a 48.2% decline.

Year-to-year revenues for the Company's hair styling ingredient sold through Nouryon were skewed by a large re-stocking order delivered in late 2020 that met a significant portion of Nouryon's needs for much of 2021. Orders began to recover in late 2021 and early 2022.

Pressure from consumers for more sustainable products continues to grow and create opportunities for our ingredients. As described above, we see an attractive market in hair care for our technology platform and have filed a patent application for new plant-based hair care technology that we plan to launch as VELASOFT® BR 300 later in 2022.

Intermediates

We did not have any meaningful revenues in 2021 from our intermediates.

We do see opportunities to develop our BIO*Asterix™ line of functional additives into sizable new revenue potential based on new bio-based chemistries derived from itaconic acid. These additives address a wide range of applications, from composites to additives in biodegradable plastics. We expect the potential from our technology platform to grow in line with the need for more sustainable solutions across many consumer markets, but expect that we will need several years and collaboration partners to realise major revenues.

After the reporting period, we announced a major new patent filing in composite applications. Market and materials research led by Dr. Yvon Durant, Itaconix's CTO, have created a path to making certain composite materials that may allow a safer process for products that also have higher plant-based content. If granted, the patent will protect a new family of intellectual property for Itaconix. The review process for the filing is expected to take at least two years and the next steps would be to ensure product safety and efficacy.

We continue to develop and test potential additives for biodegradable packaging. Although we see some specific opportunities emerging, we expect that progress will remain slow without any revenue expectation to at least 2024.

Innovation

We are working on broadening the applications addressed by our Itaconix® DSP 2K™ polymer beyond its current use in cleaning. An important milestone in these efforts was our first order for use in sustainable fashion, which we view as a new and potentially major application. The customer is a leading European supplier to companies that produce materials for the fashion and related industries. As a plant-based alternative to fossil-based polymers currently used in the production process, Itaconix® DSP 2K™ is expected to create new opportunities for consumers to buy more sustainable products. Although the initial order in 2021 was small and intended only for consumer sampling, we have already received a large reorder in early 2022. We expect to set new standards for performance and sustainability in other new generations of consumer products.

Intellectual Property

We have increased our addressable market for our current and new products from $750 million to $2.3 billion. VELAFRESH® SAP80 is our new plant-based SAP for more sustainable hygiene applications. We filed new patent applications for plant-based composites in 2021 and for plant-based hair care in early 2022.

Covid-19

The broad effects of the Covid-19 pandemic continue to be a factor in our operations. We have maintained our production capabilities and customer deliveries but have faced extended transport times for incoming raw materials and outgoing customer shipments. We work closely with our customers to overcome Covid-related disruptions.

Ukraine

In March 2022, we reviewed all activity with the Russian Federation and Republic of Belarus. We do not have direct customers in these regions nor in Ukraine, and do not expect the war to have a direct impact on our business. As with all manufacturers, we do expect and are closely monitoring secondary effects of the war on energy prices, other commodity prices, supply chains, capital markets, and overall economic activity.

Shareholder Engagement

We work closely with our advisers to update current and potential shareholders regularly on our commercial progress and potential, including through virtual meeting providers. We resumed direct meetings in March 2022, but plan to continue to also use virtual meetings for ready access and engagement with our shareholders.

A significant portion of our shares are held by US-based investors. Despite our listing on the US OTC market, US securities regulations and practices create obstacles for the free trading of low-priced shares such as ours. We are working to improve access to share trading in the US, which we believe will benefit all shareholders.

Outlook

Even with a growing commercial base and expanding technology platform, 2021 showed that we are not immune to the macro forces affecting consumer product industries. Customer inventory cycles accelerated as companies overstocked leading to an extended destocking period. Incoming raw materials and outgoing customer shipments had longer delivery times and higher costs. The supply of other ingredients into our customers' products had major supply disruptions that delayed the use of our products.

We worked hard in 2021 to mitigate these factors and entered 2022 in a much better position to succeed in this new environment. We prepared our major customers for price increases needed as a result of the higher raw material costs, whilst also assisting them to maintain strong competitive positions. We have implemented these increases and plan to continue to do so should our costs continue to increase. We also prepared our customers for the lead times needed to ensure supply of their products. As supply chain disruptions persist, availability of consumer products on the actual or virtual retail shelf is a key emerging competitive advantage.

The most exciting change and opportunity we face is the increased urgency that consumers, retailers, and brands place on climate change and the global low-carbon economy. The spotlight is now firmly on the need for more sustainable products, which is exactly where we stand with our plant-based ingredients.

Our current products are winning new customers that are in turn expanding our base of recurring revenues. Our success with new customers is also generating interest in our ingredients from other brands that is improving the size and quality of our customer pipeline. At the same time, continued innovation within our technology platform is expanding our revenue horizons into new larger applications that have pushed our current addressable market to over $2.3 billion.

Although market volatility will continue in 2022, our achievements on major customer projects in 2021, are generating substantial commercial progress in 2022 that will add to our expanding base of recurring revenues.

We look forward to continued success at commercialising the Itaconix technology platform.

John R. Shaw
Chief Executive Officer

7 June 2022

Principal Activities

Itaconix plc is a leading innovator in plant-based ingredients for improving the safety and performance of consumer and industrial products. Its proprietary polymer technologies generate a growing range of new specialty ingredients with unique functionalities that meet consumer demands for value and sustainability.

The Group's principal activities are the development of plant-based polymers and the production and sale of these materials globally, both directly and through partners as ingredients in product formulations.

Most of the Group's efforts are focused on home and personal care applications where consumer interest and desires for safer and more sustainable products are particularly high.

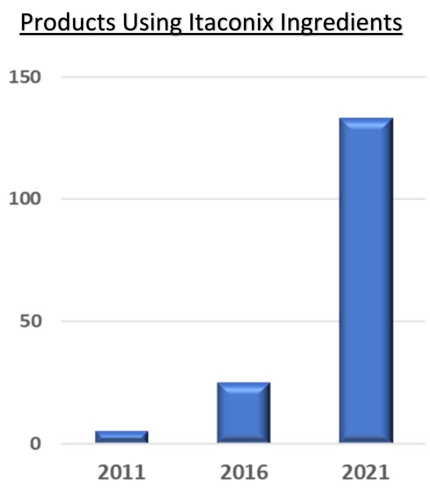
Proprietary Ingredients with Unique Functionality

The Group has conducted many years of exploratory research and holds an extensive patent portfolio related to the production and use of polymers made from itaconic acid. The commercial potential for these materials as ingredients in consumer products stems from the unique functionalities available through the chemical structure of itaconic acid and from the production of itaconic acid through fermentation using plant-based sugar.

The Group's technology platform has commercial momentum in cleaning, hygiene, and beauty as a result of the process of identifying a market need and then developing a product to meet that need. As these products gain success, Itaconix is working on new products to emerge from its technology platform.

Progress in 2021

The Group advanced its development and commercial activities in its core cleaning, beauty, and hygiene applications, as detailed in the Chief Executive Officer's Statement.



The Group's products are formulated as key ingredients in a growing range of consumer product. They are now used in over 130 brands worldwide across a widening variety of uses and sold in more retailers. This increase in use, however, did not translate into higher revenues in 2021. Hygiene revenues increased but revenues in cleaning and beauty declined. The most significant issue was in the cleaning segment, where the impact of pandemic-driven inventory stocking by customers in late 2020 and early 2021 was followed by rebalancing of inventories later in 2021. These actions created low monthly volumes in the middle of 2021, which have since recovered as more regular order patterns have returned.

While revenues lagged for the year, the Group continued to add important new brands and new uses to its commercial base. A major North American consumer brand launched a new dishwashing detergent that set a new level for sustainability and performance. A leading European sustainable dishwashing detergent brand is using Itaconix® TSI™ 322 in its new formulation that will launch in 2022. New uses for Itaconix polymers include initial orders in a sustainable fashion application to replace fossil-based polymers. Although 2021 revenues were down, the Group is well positioned for growth in the coming years.

Key Performance Indicators (KPIs)

The Directors believe that the key performance indicators for the Group are:

- Revenues
- Adjusted EBITDA, the earnings before interest, tax, depreciation, amortization, and exceptional items
- Cash

The Group seeks to monetise its technology platform through revenues generated by a growing number of commercial products. Revenue performance is detailed above in the Chief Executive Officer's Statement.

The Directors measure these commercial activities against the Group's rate of cash expenditure and its effect on cash resources. Cash used for operating activities in 2021 was $2.0m compared to $1.2m in 2020. Details of cash flows are set out in the Group's Consolidated Cash Flow Statement on page 46 and note 21 on page 67.

Key performance metrics were impacted by temporary interruption in revenues due to short-term external issues in consumer supply chains, as noted above. Revenues for the year decreased by 21.1% from 2020. The gross profit margin was 27.0% in 2021 compared to 35.1% in 2020 as cost of goods sold was affected by higher production overhead costs from lower volumes and some increases in raw material costs that were not passed through to customers until early 2022. Cash used in operations increased from $1.2m in 2020 to $2.0m in 2021, with approximately $0.7m of the increase for current year operations and approximately $0.2m for working capital. This was supported by the Group's successful fundraise in June 2021. Below is a table showing the Group's key performance metrics:

	2021	2020	2019	2018
	$'000	$'000	$'000	$'000
Revenue	**2,596**	3,292	1,288	881
Gross profit	**700**	1,154	450	140
Gross profit margin	***27.0%***	*35.1%*	*34.9%*	*15.9%*
Adjusted EBITDA[1]	**(1,640)**	(993)	(2,457)	(5,370)
Cash used from operating activities	**(2,023)**	(1,157)	(1,831)	(6,973)
Net cash at year-end	**683**	1,448	765	2,655

Financial Performance

Revenue

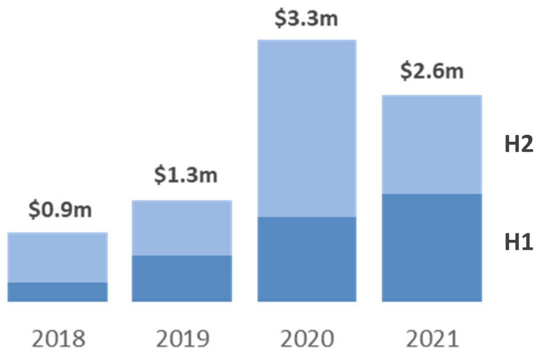
Total revenues for the 12-month period ended 31 December 2021 were $2.6m, representing a 21.1% decrease from 2020 revenues of $3.3m. Although there was a decrease year over year, revenues over the last four years have a compounding annual growth rate of 43.4%. Revenues lagged across cleaning and beauty, while hygiene experienced considerable growth. Cleaning decreased by 29.5% from 2020, the decrease being due to exceptionally large orders in late 2020 and early 2021 to build customer stocks and rebalancing of customer and retailer inventories in the middle of 2021. While this reduction in orders caused lower cleaning revenues in the second half of 2021, the base of customers and brands using Itaconix ingredients continued to grow, and cleaning polymers remain the largest area for near-term growth potential.

Beauty decreased by 48.2% from 2020, which was due to a large stocking order fulfilled in November 2020.

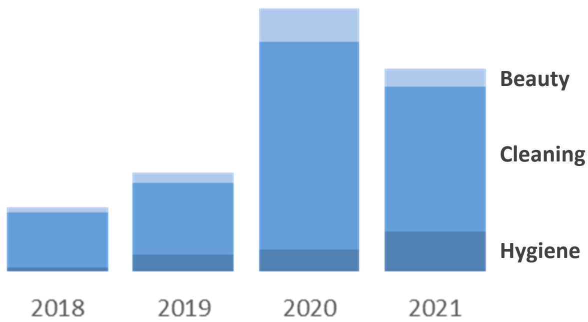
Hygiene increased by 70.2% from 2020, due to both recurring orders and new orders in new uses and new brands. New brands in Europe and Asia used Itaconix ingredients in odour neutralization products. New uses included fabric refreshers and pet care.

Revenues in all geographical regions decreased. North America represents 92.8% of the Group's revenue and decreased by 16.0%. North America revenue contracted largely due to the external issues of customer supply chains.

Revenues 2018 – 2021 (H1 v H2)



Revenues 2018 – 2021 (Segment)



[1] Adjusted for interest, tax, depreciation, amortization, and exceptional items.

Europe represents 7.2% of the Group's revenue and decreased by 56.0%. European revenue suffered largely due to the large stocking order placed in November 2020 for the Group's hair styling polymers.

Gross Profit and Adjusted EBITDA[1]

Gross profit margin was 27.0% in 2021 compared to 35.1% in 2020. There were significant increases in the raw material costs due to inflation, increased shipping costs, prices of corn stock in China, and energy restrictions placed on Chinese companies. These global factors affected many companies including Itaconix. The Group was able to implement pricing increases to offset these factors and protect the Group's gross margins while selectively supporting initial uses in new applications and the competitive position of a major cleaning customer to gain future volumes.

Adjusted EBITDA is a non-IFRS measure but is widely recognised in financial markets and it is used within the Group as a key performance indicator. Adjusted EBITDA was a loss of $1.6m in 2021 (2020: loss $1.0m) which was worse by 65.2%. Since the 2018 Group reorganization, the Group's EBITDA trajectory has improved.

Below is a reconciliation of Loss for the Year to Adjusted EBITDA:

	2021	2020	2019	2018
	$'000	$'000	$'000	$'000
Loss for the year	**(455)**	(1,646)	(1,358)	(9,868)
Taxation	**7**	7	1	(187)
Depreciation	**167**	200	223	296
Amortization	**201**	198	198	-
Exceptional revaluation of contingent consideration	**(1,560)**	339	(1,474)	3,323
Exceptional organizational restructuring	**-**	(91)	-	1,190
Finance income	**-**	-	(1)	(4)
Movement on investment in associate	**-**	-	(46)	(120)
Adjusted EBITDA	**(1,640)**	(993)	(2,457)	(5,370)

Administrative Expenses

Administrative expenses consist of sales, marketing, operations, research and development, and public company costs such as legal, finance and the Group Board. These expenses were $2.9m in 2021 up from $2.6m in 2020. The increase in administrative expense was largely due to increased staffing to support the Group's growth plans.

Costs and Available Cash

As at 31 December 2021, the Group held cash of $0.7m. Net Cash outflows from operating activities of $2.0m in 2021 were used to add key personnel and support working capital needs compared to $1.2m in 2020 as the Group built inventories to support new customer product volumes. The Group successfully completed a $1.6m placing with a large shareholder, IP Group entities and a new institutional investor in June 2021.

Working capital

At year end, working capital had decreased and the most significant change in working capital was trade and other payables. Trade and other payables decreased to $1.0m in 2021 from $1.4m in 2020. Inventories remained flat at $1.4m in 2021 and 2020 to support current customer demand. Working capital as a per cent of revenues decreased to 50.5% in 2021 from 56.7% in 2020.

Financial Position

At 31 December 2021, the Group had equity of $0.6m as compared to ($0.6m) in 2020, primarily as a result of a revaluation of the deferred consideration (note 17) net of the equity raise.

Revaluation of Deferred Consideration

As a result of revaluing deferred consideration related to the acquisition of Itaconix Corporation in 2016, per note 17, there was an exceptional non-cash income of $1.6m in 2021, which offsets the exceptional non-cash expense of $0.3m (excluding foreign exchange) from 2020. In addition to the revaluation of the liability the Group issued 1,923,389 shares to certain Sellers of Itaconix Corporation on 12 April 2021 in settlement of the contingent consideration payment for 2020.

Financial Reporting

There were no new reporting standards adopted for the year end 31 December 2021 that have a material impact on the financial statements.

Going Concern

The financial statements have been prepared on a going concern basis. The Directors have reviewed the Parent Company's and the Group's going concern position taking account its current business activities, budgeted performance and the factors likely to affect its future development, set out in the Annual Report, and including the Group's objectives, policies and processes for managing its working capital, its financial risk management objectives and its exposure to credit and liquidity risks.

The Directors have also taken into consideration the impact of the Covid-19 pandemic and the war in Ukraine on the Group's revenues and supply chain. While there has not been a significant negative impact through the report date on the Group revenues or supply chain due to the pandemic, the Directors have applied sensitivities to the timing, quantum, and growth of new customer projects in revenue models and have assessed alternate supply chains that have been developed by the Group to mitigate any issues in deliveries to our customers.

As further detailed in the Directors' Report on page 29 and note 2 to the Annual Report, the Directors have reviewed the Group's cash flow forecasts covering a period of at least 12 months from the date of approval of the financial statements, which foresee that the Group will be able to meet its liabilities as they fall due. However, the success of the business is dependent on customer adoption of our products to increase revenues and profits. Inability to deliver this could result in the requirement to raise additional funds.

Shareholdings and Earnings per Share

Itaconix had 443,462,757 shares in issue as at 31 December 2021. The undiluted weighted average number of shares for the period to 31 December 2021 was 438,808,097. The difference in the two numbers is the result of an issuance of new shares in satisfaction of the contingent consideration in April 2021 (see note 17) and an issuance of new shares in June 2021 (see note 20). The undiluted weighted average number of shares was used to calculate the loss per share presented in note 10.

Effective risk management is a priority for the Group to sustain the future success of the business. Therefore, the Directors have overall responsibility for the Group's risk management process but have delegated responsibility for its implementation, the system of controls which reduce risk and for reviewing their effectiveness to the management team. The risk of uncertainties that the Group face evolve over time, therefore the management team review and monitor the emerging risks and update mitigation effort. The results are reported to the Board.

Commercialisation Activities

There were some challenges due to the lingering pandemic that affect the Group's commercial activities. These included over stocked supply chains of consumer goods, limited supplies of certain other detergent components due to emergency plant shutdowns in Texas and Delaware, and shipping delays from Asia to North America. These challenges were temporary and ultimately the success of the business relies upon Itaconix products reaching sufficient quantities for the Group to generate an overall profit.

Management of risk: The Group has sought to manage this commercialisation risk by partnering with market leaders for the worldwide promotion of our leading products, continued development of end-user formulas to provide customers with packaged solutions, and continuous review of the market needs for Itaconix products.

Dependence on Key Personnel

The Group depends on its ability to retain highly qualified managerial and scientific personnel. There are a limited number of candidates with the experience and skills to replace these key personnel. Attracting the best candidates can be highly competitive. While the Group has conventional employment arrangements with key personnel aimed at securing their services for minimum terms, their retention cannot be guaranteed.

Management of risk: The Group expanded its management team to support operations and has service contracts in place for John R. Shaw as Chief Executive Officer and Dr. Yvon Durant as Chief Technology Officer. In addition, the Group seeks to retain key personnel in the US using an Equity Incentive Plan for share option grants, as disclosed in note 22.

Customer Retention

The ability to retain key customers is critical to maintaining revenue streams. The loss of key customers could impact business results adversely.

Management of risk: Acceptance of our products in our customers' end-product formulations is monitored and managed. Our customer service includes regular engagement on the performance of both our products and the end-products to ensure our ingredients are delivering the desired value to our customers and end-users.

Regulatory and Legislation

Regulatory bans on the use of phosphates as ingredients in detergents have transformed the consumer detergent markets in Europe and North America over the last ten years. Phosphates are known to enter waterways through detergent effluent and act as a nutrient for algae growth that subsequently cuts oxygen levels in water and harms aquatic life. We believe that phosphates are likely to be phased out in other jurisdictions around the world over time. Itaconix polymers are effective replacements for phosphates in detergents and are used in numerous detergent products in North America and Europe for this purpose.

Management of risk: The Group closely monitors regulatory developments in the use of ingredients in consumer and industrial products to assure compliance and find new revenue potential for Itaconix polymers. Further, the Group regularly assesses the relative performance and cost efficacy of Itaconix polymers to current and emerging phosphate replacements to identify revenue risks and opportunities.

Competition and Technology

The production and use of Itaconix polymers are subject to technological change over time. There can be no assurance that developments by others will not render the Group's product offerings and research activities obsolete or otherwise uncompetitive.

Management of risk: The Group employs experienced and highly-trained polymer chemists to develop and protect the Group's intellectual property. These efforts include continuous work on the performance and cost advantages of Itaconix polymers. In addition, the staff monitors technologies and patents through publications, scientific conferences, and collaborations with other organisations to identify new risks and opportunities.

Covid-19 Risk

The Group faces continued volatility due to Covid-19 related disruptions in the demand for its products, the supply of raw materials, and the supply of other ingredients going into customer products. Our operations continued to operate while implementing recommended CDC guidance to protect our employees and provide a safe work environment. Supply chain issues emerged in early 2021 due to extended shipping times and the availability of other ingredients going into customer products.

Management of risk: Management closely monitors Covid-19 regulatory developments and expected demand from customers. Management and staff actively communicate with all major suppliers and customers about upcoming demand and reliability of the supply chain. We also hold significant stock of long lead time raw materials from Asia.

Liquidity Risk

Itaconix seeks to manage financial risk by ensuring adequate liquidity is available to meet foreseeable needs and to invest cash assets safely and profitably. In June 2021, the Group completed a $1.6m fundraise to support general working capital and new product development to further the Company's commercial progress. In addition, short-term flexibility is achieved by holding significant cash balances in Itaconix's functional currencies, notably UK Sterling and US Dollars.

Credit Risk

The principal credit risk for Itaconix arises from its trade receivables. To manage credit risk, new customers are subject to credit review and all customer accounts are regularly reviewed for debt aging and collection history. As at 31 December 2021, there were no significant credit risk balances.

Inflation Risk

Global economies have experienced significant inflation during 2021. The cost of raw materials increased as costs for shipping, energy and ingredients increased. These increases were partially recovered in selling price increases to customers.

Foreign Exchange Risk

Itaconix Plc is a publicly traded holding company on the London Stock Exchange. The Group's primary operations are in the US. These US based operations transact trades with customers in North America and internationally. Revenue and costs are exposed to variations in exchange rates and therefore reported losses. In 2019, the Group elected to convert the reporting currency from UK Sterling to US Dollars. The US Dollar transactions represent a significant portion of the functional currency transactions and therefore reduces the Group's overall exposure to translation exchange risk.

Government Risk

The Group has potential exposure to government activities related to Covid-19, the war in Ukraine, and US-China trade relations. Risks related to Covid-19 are detailed above.

Regarding the war in Ukraine, we reviewed all activity with the Russian Federation and Republic of Belarus. We have no direct customers in these regions nor in Ukraine and do not expect the war to have a material direct impact on our business other than the overall supply chain and economic effects experienced by manufacturers.

Limited availability and extended delivery times have combined to trigger major increases to certain raw material costs and may continue to cause volatility. These disruptions have created a steady need to monitor raw material sourcing, assess alternative suppliers, and adjust the pricing of the Group's products.

Polymers for Better Living™

Our polymers are advanced sustainable materials that can make the world a better and safer place to live as essential ingredients in the next generation of consumer products.

The composition of our polymers, our patented process to produce them, their performance as ingredients in consumer product formulas, and how these formulas are packaged and delivered to consumers contribute to the fight against climate change with plant-based carbon, sequestering carbon, energy efficiency, and lighter consumer products.

Itaconix Ingredient Benefits as Advanced Sustainable Materials

Product	Plant-Based Carbon	Decarbonisation	Energy Efficiency	Lighter Products
Cleaning				
Itaconix® DSP 2K™	100%	√	√	√
Itaconix® TSI™ 322	>75%	√	√	√
Itaconix® TSI™ 122	>80%	√	√	√
Itaconix® ONZ 075	>99%	√	√	
Hygiene				
ZINADOR™ (Croda)	80-100%	√	√	
VELAFRESH™ ZP20/30	80-100%	√	√	
VELAFRESH™ SAP80	>98%	√	√	
Beauty				
Amaze™ SP (Nouryon)	100%	√	√	
VELASOFT™ NE 100	100%	√	√	
VELASOFT™ BR 300	100%	√	√	

Plant-based carbon

The renewable carbon in the itaconic acid we use to make Itaconix products is captured as carbon dioxide by plants. Corn plants convert carbon dioxide into carbon in sugars that are used to produce itaconic acid via fermentation. We bring this itaconic acid into our patented process at our US operations to produce polymers that have 75-100% plant-based carbon.

Decarbonisation

The increase of carbon dioxide as a greenhouse gas in our atmosphere is a major cause of climate change. Carbon dioxide is sequestered as carbon in Itaconix products for a period of time until, depending on the circumstances, they degrade. During this period, the amount of carbon held contributes to a reduction of carbon dioxide in the atmosphere.

Energy efficiency

Improving energy consumption is a major sustainability goal for Itaconix and within the chemical industry.

Itaconix's efforts start with its patented polymer production process, which is efficient in its use of energy and capital equipment. Less energy use translates into less direct and indirect GHG emissions.

Itaconix is working to extend its energy efficiency efforts across all of its operations and practices with the development of reporting under the Streamlined Energy & Carbon Reporting (SECR) framework. We began in 2020 with the direct and indirect emissions from the purchase of electricity and natural gas. The table below shows the energy consumption and estimated GHG emissions at our US operations for the 12-month period ending 31 December 2020 from these activities.

	Energy consumption (kWh)		GHG emissions (tCO_2e)	
	2021	2020 (Restated)	2021	2020 (Restated)
Direct and indirect emissions	394,475	408,296	212.32	218.13
Intensity ratio: tCO_2e per $m Net Revenue			81.66	66.10

We have selected an intensity metric based on tonnes of carbon dioxide emissions (tCO_2e) per $m Net Revenue. We will use this ratio to monitor and extend our energy efficiency efforts further into our operations and practices. Although our estimated direct and indirect GHG emissions declined in 2021, the intensity ratio increased due to lower overall production levels.

Water efficiency

Improving water consumption is a major sustainability goal for Itaconix and within the chemical industry. Itaconix was able to reduce its water consumption in production through re-engineering its facilities cooling operations in early 2021, saving over half the annual usage from the prior year.

	Water consumption (gal)	
	2021	2020
Direct consumption	336,540	829,312
Intensity ratio: gallons per $m Net Revenue	129.44	251.31

Lighter products

The multifunctional performance of Itaconix ingredients offers the potential for more compact consumer products, particularly in detergents. Compact products are lighter and can reduce greenhouse gas emissions by using less chemicals, less packaging, and more efficient transportation.

Revenues from Advanced Sustainable Materials

Itaconix plc is dedicated to reducing the planet's carbon footprint and addressing climate change with plant-based polymers that are essential ingredients in a new generation of safer, more sustainable consumer products.

Our financial results demonstrate that commercial and environmental progress can advance equally through the value and adoption of our ingredients. We are pleased to announce that 95% of our 2021 revenues (2020: 96%) were derived from advanced sustainable materials. This means that 95% of our revenues are related specifically to the design, development, and manufacture of materials that during their manufacture or through their use allow for considerable increases in the efficiency of resource usage.

Statement of Compliance with Section 172 of the Companies Act 2006

The Directors are required to include a separate statement in the Annual Report that explains how they have considered broader stakeholder needs when performing their duty under Section 172(1) of the Companies Act 2006. This duty requires that a director of a company must act in the way he or she considers, 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 decision 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 the environment;
- the desirability of the company to maintain a reputation for high standards of business conduct; and
- the need to act fairly between members of the company.

In connection with its statement, the Board describes in general terms how key stakeholders, as well as issues relevant to key decisions are identified, and also the processes for engaging with key stakeholders including employees and suppliers, and understanding those issues. It is the board's view that these requirements are predominantly addressed in the corporate governance disclosures we have made in the directors' report, which are themselves discussed more extensively on the company's website.

A more detailed description is limited to matters that are of strategic importance in order to remain meaningful and informative for shareholders. The Board believes that three decisions taken during the year fall into this category, and engaged with internal and external stakeholders on these decisions:

- 2021 Fundraise – The Directors, along with the Group's NOMAD and broker, assessed the placement by direct subscription with a new institutional shareholder together with existing institutional shareholder IP Group entities, to support the Group's fundraising efforts. The proceeds of the fundraise were used for general working capital purposes and new product development to further the Company's commercial progress.
- Appointment of New Nominated Advisor and Broker – The Directors continually assess the evolving needs of the Group. The Group interviewed several NOMAD and brokers to determine the best fit for the Group and made the ultimate decision to change to a new NOMAD and broker in August 2021.
- Covid-19 – The Group continually assesses the impact Covid-19 has on customer orders, supply chain and employees. Efforts have been put in place to support customer demand, ensure safety stock, and safeguard employees' wellness as the pandemic continues and perhaps is entering an endemic stage.

The Strategic Report encompassed on pages 8 through 15 was approved by the Board of Directors on 7 June 2022 and signed on behalf of the Board of Directors by:

James Barber Chairman	John R. Shaw Chief Executive Officer

Dr. James ("Jim") Joseph Barber (aged 68) – Independent Non-Executive Chairman

Jim joined the Board on 12 September 2016 and became Chairman on 21 December 2018. Since 2007, he has run his own business consultancy practice Barber Advisors LLC. Prior to this, Jim served as President and CEO of Metabolix, Inc. from January 2000 to May 2007, leading the transformation of Metabolix from a research boutique to a world renowned, highly regarded leader in "clean tech" and industrial biotechnology, with a market cap of over $500m. Prior to joining Metabolix, he had senior commercial roles at the Organometallics and Catalysts business of Albemarle Corporation, Ethyl Corporation, and a number of other chemicals businesses. Jim is a non-executive director of Graham Corporation.

He has a BS degree in Chemistry from Rensselaer Polytechnic Institute and a PhD in Organic Chemistry from the Massachusetts Institute of Technology.

John Roger Shaw (aged 62) – Chief Executive Officer

John joined the Board on 12 July 2018, when he assumed the role of Chief Executive Officer. As a founder, John has driven the direction and growth of Itaconix Corporation since 2008. He has over 25 years of experience in senior management roles in the pharmaceutical, biomedical, and specialty chemical sectors and brings significant marketing, strategy, and business management expertise along with a broad technical understanding to Itaconix's management team. John began his career holding a number of increasingly senior roles at SmithKline Beecham, Westaim, and Mitek Systems, Inc.

He has a BA in Economics from Pomona College and an MBA from Harvard Business School.

Dr Bryan Crawford Dobson (aged 69) – Independent Non-Executive Director (Retired)

Bryan joined the Board on 13 September 2012 and resigned from the Board 15 April 2022. He has more than 30 years' experience in the chemicals industry: 28 years with ICI and 5 years with the Croda Group, where he was most recently President Global Operations for Croda International. He was a member of the executive management teams in Croda and in a number of large specialty chemicals businesses in ICI and has extensive management experience running regional and global business units in the UK, US, Belgium, and The Netherlands. He also has expertise in developing new business in the specialty chemicals sectors; extensive functional experience in R&D and operations, and significant M&A experience. He is also currently Non-Executive Chairman of Applied Graphene Materials Plc.

BOARD OF DIRECTORS

John Ingalls Snow III (aged 61) – Independent Non-Executive Director

John joined the Board and became Audit Committee Chair on 2 October 2018. He has 30 years' experience in the private equity market. He is currently a Managing Director at Quabbin Capital, Inc., a Boston based alternative investment firm. John is a non-executive director of Upper Crust Holdings, LLC, Winchester Savings Bank, Advanced Duplication Services, Endowment for Health, and Mary Snow Designs, Incorporated.

He has a BA in Economics from Amherst College and an MS in Accounting from New York University. John is a Chartered Financial Analyst and a non-practicing Certified Public Accountant.

Charlean Gmunder (aged 58) – Independent Non-Executive Director

Charlean joined the Board as a Non-Executive Director on April 15, 2022. She is Blue Apron's Chief Operating Officer. Before joining Blue Apron in November 2020, Charlean was the vice president of catering operations with United Airlines, where she was responsible for six company-owned direct food-related manufacturing sites and all third-party manufacturing worldwide. Prior to United Airlines, Charlean was Vice President, Operations, Prepared Meat for Maple Leaf Foods, the largest meat processor in Canada.

Charlean has held leadership responsibilities in both large multinationals and smaller North American food processing operations. A large portion of her career was spent with the Wm. Wrigley Jr. Company in a variety of leadership roles in Manufacturing, Engineering, Quality Assurance, Logistics, and Sales. As President of the wholly-owned subsidiary, L. A. Dreyfus Company, Charlean was also responsible for global gum base operations for the Wrigley Company.

Charlean holds a bachelor's degree in Chemical Engineering and an MBA, both from Rutgers University.

The Board is committed to ensuring that the Group has the people, strategy, and structure to deliver value to customers and shareholders in the near and long term. We recognise that effective corporate governance is essential to meeting this commitment and fundamental to the success of the Group.

Solid corporate governance starts with the calibre and talents of the Directors. Biographies of the Directors are presented on page 17 and 18 in this Annual Report and reveal a range of relevant experience that brings a high level of independent judgement to Itaconix's business.

Under AIM Rule 26, AIM-quoted companies are required to adopt and give details of the corporate governance code which they have adopted and to show how they are following it. Of the recognised codes generally adhered to by AIM companies, the Quoted Companies Alliance's (QCA) Corporate Governance Code for small and mid-size quoted companies (the "QCA Code") was drafted with smaller businesses using a pragmatic and principles-based approach. The Board deemed the QCA Code as the most suitable for the Group and adopted it with effect from 29 September 2018.

As Chair, I am responsible for leading the overall effectiveness of the Board, for ensuring that the Board maintains effective corporate governance processes, and for promoting open communication and debate within the Board and across the Group to foster a positive governance culture. I am pleased with the continued application of the QCA Code and the Company's approach to complying with the QCA Code which is set out below.

Compliance with the Quoted Companies Alliance Corporate Governance Code

The QCA Code identifies ten principles that focus on the pursuit of medium- to long-term value for shareholders without stifling entrepreneurial spirit. Itaconix's adoption of the QCA principles is summarised below. Further details are available on our website.

1. **Establish a strategy and business model which promote long-term value for shareholders**

   Over the last ten years, Itaconix developed a polymer technology platform for producing specialty ingredients from renewable resources. The Group uses its novel chemistries to create new ingredients with unique functionality that create value and meet customer needs in homecare, personal care, and industrial products. We utilise direct sales efforts to acquire initial customers and confirm the value for a new product and may elect to scale globally with appropriate marketing partners. The long-term revenue and profit potential of each new product relative to its near-term development cost can generate many years of attractive returns and shareholder value. Our near-term strategy is to balance aggressive sustained product innovation from our polymer technology platform with a focus on profitable product lines and long-term financial stability. Additional information on our strategy and business model is presented in the Strategic Report on pages 8 to 15.

2. **Seek to understand and meet shareholder needs and expectations**

   The Board is committed to communicating and having constructive dialogues with current and potential shareholders on a regular basis. Shareholders are encouraged to attend the Company's Annual General Meeting and any other General Meetings that may be held during the year. Information on significant Group milestones and developments is readily available in news releases, investor presentations, interim reports, and annual reports issued directly, broadcast widely, and posted to the Group's website. Our CEO is the primary contact for current and potential investors and works closely with our Nominated Advisor (NOMAD) and others to interact with the broader investment community on a regular basis.

3. **Take into account wider stakeholder and social responsibilities and their implications for long-term success**

   The Board is committed to the Group developing and maintaining open communications and dialogues with employees, customers, suppliers, regulators, investors, and partners. In addition to the investor activities described above, key practical elements of this commitment include a flat organization with ready employee access to management and the Board, regular direct contact with customers, quality assessments and reviews with vendors, and leadership roles in industry and scientific associations.

4. **Embed effective risk management, considering both opportunities and threats, throughout the organization**

   The Board and management use a framework that effectively identifies, assesses, and manages the risks to the business that allows the Group to achieve its corporate objectives. The risk management process is embedded in monthly reporting and quarterly meetings. The risks that the Board considers to be most significant to the Group's business are set out on pages 12 to 13.

5. **Maintain the Board as a well-functioning, balanced team led by the Chairman**

   The QCA Code requires that Boards have an appropriate balance between Executive and Non-Executive Directors and that each Board should have at least two Independent Directors. The Board is made up of one Executive Director and three Independent Non-Executive Directors. The three Independent Non-Executive Directors are experienced and independent persons who have each succeeded in their own businesses and are not dependent upon income from the Group. They have a strong and detailed understanding of the business, and are prepared and able to intervene and challenge the Executive Director and management.

6. **Ensure that between them the Directors have the necessary up-to-date experience, skills and capabilities**

   All members of the Board bring relevant experience to the Board's responsibilities and duties. The Board believes its blend of experience, skills, and personal capabilities are well-suited for governing the success of the Group. Details of the background and experience of the Directors are set out in their biographies. These demonstrate that the Board collectively has extensive specialty chemical industry knowledge and relevant experience on the challenges of technology-based growth businesses and publicly-traded companies.

7. **Evaluate Board performance based on clear and relevant objectives, seeking continuous improvement**

   The Board performed a formal self-assessment in 2021 to evaluate various aspects of its structure, performance, and interaction with management. This self-assessment contributed to the Board's search for new directors. The Board will continually review its needs and assess opportunities for improvement as the Group's commercial activities develop.

8. **Promote a corporate culture that is based on ethical values and behaviours**

   Itaconix's core values are embedded in its quality system, which commits the Group to consistently deliver customer value, satisfaction and service through continual improvement and employee development. Key pillars of the culture are curiosity to use new approaches and technology to meet a need, accuracy of scientific analyses, the safety of our products and our processes, data-driven product claims that encourage customers to reformulate, reliable order fulfilment with quality product, compliance with all laws and regulations, and respect for the livelihoods of all stakeholders. These values and pillars are introduced and reinforced through daily routines and periodic activities that instil ethical and rewarding behaviour into each employee's work practices and experience.

9. **Maintain governance structures and processes that are fit for purpose and support good decision-making by the Board**

   Formal Board meetings are held at least quarterly to review strategy, management, and performance of the Group, with additional meetings between those dates convened as necessary. We have three Board committees, the Audit Committee, the Remuneration Committee, and the Nominations Committee. The terms of reference of these committees of the Board are available on our website.

10. **Communicate how Itaconix is governed and is performing by maintaining a dialog with shareholders and other relevant stakeholders**

    The Company's approach to investor and shareholder engagement is described under Principle 2 above. Annual reports, Annual General Meeting notices, regulatory announcements, trading updates and other governance related materials since the year 2016 are available on our website.

The Board of Directors

The Board of Directors is responsible for the proper management of the Group by formulating, reviewing and approving the Group's strategy, budgets, and corporate actions. In order to achieve its objectives, the Board has adopted the ten principles of the QCA Code. Through successfully implementing these principles, the Board aims to deliver long-term growth for shareholders and maintain a flexible, efficient and effective management framework within an entrepreneurial environment.

It is important that the Board itself contains the right mix of skills and experience in order to deliver the strategy of the Group. As such, the Board is comprised of:

- An Independent Non-Executive Chair, whose primary responsibility is the delivery of the Group's corporate governance model. The Chair has a clear separation from the day-to-day business of the Group which allows him to make independent decisions;
- One Executive Director; and
- Two Independent Non-Executive Directors.

The Board has not appointed a Senior Independent Director after taking into account the Group's size and development stage.

Each Director serves on the Board subject to re-election on a three-year rotation at the Annual General Meeting. The Board generally meets at least four times a year.

Corporate Governance

In compliance with UK best practice, the Board has established the following committees to help the Board discharge its responsibilities with formally delegated duties and responsibilities.

1. Audit Committee

The purpose of the Audit Committee is to monitor the integrity of the financial statements of the Group and to assist the Board in its oversight of risk and risk management processes.

Some of the Audit Committee's duties include:

- Reviewing the Group's accounting policies and adoption of new accounting standards;
- Reviewing reports from the external auditor;
- Considering whether the Group has followed appropriate accounting standards and made appropriate estimates and judgments, taking into account the views of the external auditor;
- Reporting its views to the Board of Directors if it is not satisfied with any aspect of the proposed financial reporting by the Group;
- Reviewing the adequacy and effectiveness of the Group’s internal financial controls and internal control and risk management systems;
- Reviewing the adequacy and effectiveness of the Group's anti-money laundering systems and controls for the prevention of bribery and receive reports on non-compliance; and
- Overseeing the appointment of and the relationship with the external auditor.

The Audit Committee currently has three members, all of whom are Independent Non-Executive Directors and at least one member who has recent and relevant financial experience. As at 7 June 2022, the Audit Committee is comprised of John Snow as Chair, James Barber, and Charlean Gmunder.

2. Remuneration Committee

The purpose of the Remuneration Committee is to develop and propose to the Board the framework and policies for the remuneration of the Group's Executive Directors and senior management.

The Committee normally meets at least twice a year and is responsible for determining and reviewing the policy for the remuneration of the Executive Directors and such other members of the executive management as it is designated to consider. Within the terms of the agreed policy, it determines the total individual remuneration of the Executive Directors. The Committee also approves the design of, and determines targets for, any performance-related pay schemes, reviews the design of any share incentive plans, determines the awards to the Executive Directors and sets the policy for, and scope of, pension arrangements for each Executive Director, as appropriate. Finally, the Committee approves the design and principles of the remuneration schemes for the employees of the business outside of the management team, which are implemented by the Executive Directors.

As at 7 June 2022, the Remuneration Committee is comprised of James Barber as Chair, John Snow, and Charlean Gmunder, each of whom is an Independent Non-Executive Director.

3. Nominations Committee

The Nominations Committee is normally required to meet at least once a year and is responsible for reviewing the structure, size and composition of the Board and recommending to the Board any changes required, for succession planning, and for identifying and nominating for approval of the Board candidates to fill vacancies as and when they arise, with a view to ensuring that the Board is composed of individuals with the necessary skills. The Committee is also responsible for succession planning for Directors and Executives, reviewing the leadership needs of the organisation, reviewing Board performance, making recommendations to the Board concerning suitable candidates for the role of senior independent Director (if applicable) and the membership of the Board's committees, and the election or re-election of Directors at the annual general meeting.

As at 7 June 2022, the Nominations Committee is comprised of James Barber as Chair, John Snow, and Charlean Gmunder, each of whom is an Independent Non-Executive Director.

Terms of Reference

All Board committees operate within defined terms of reference and sufficient resources are made available for them to undertake their duties. The terms of reference for each committee are available on the Company's website (in the Investor Relations section and under Corporate Governance).

Corporate Social Responsibility

The Board recognises the critical role of ethics, the growing concerns for social and environmental matters, and the need to take into account the interests of the Group's stakeholders, including its investors, employees, suppliers and business partners, when operating the business.

Employment

The Board recognises its legal responsibility to ensure the well-being, safety and welfare of its employees and maintain a safe and healthy working environment for them and for its visitors.

Itaconix recognizes the value of gender and ethnic diversity in its Board and Company. The Group is committed to diversity and inclusion of its governance and work force.

Relations with Shareholders

Itaconix attaches a high priority to effective communication with both institutional and private shareholders. The AGM is the principal forum for dialogue with private shareholders. A business presentation is made after the AGM and there is an opportunity for shareholders to put questions to the Directors. Itaconix aims to maintain regular contact with institutional shareholders through a programme of one to one presentations, group meetings, and briefings scheduled around the announcement of significant commercial developments in the business and the preliminary and interim financial results.

Share Dealing Code

The Company has adopted a share dealing code to ensure directors and certain employees do not abuse and do not place themselves under suspicion of abusing inside information of which they are in possession and to comply with its obligations under the Market Abuse Regulation ("MAR") which applies to the Company by virtue of its shares being traded on AIM. Furthermore, the Company's share dealing code is compliant with the AIM Rules for Companies, published by the London Stock Exchange (as amended from time to time).

Under the share dealing code, the Company must:

- Keep a list of each person who is in possession of inside information relating to the Group;
- Procure that all persons discharging managerial responsibilities and certain employees are given clearance by the Group before they are allowed to trade in Company securities; and
- Procure that all persons discharging managerial responsibilities and persons closely associated to them notify both the Company and the Financial Conduct Authority of all trades in Company securities that they make.

Internal Control

The Board has overall responsibility for ensuring that the Group maintains a system of internal control to provide its members with reasonable assurance regarding the reliability of financial information used within the business and for publication and that the Group’s assets are safeguarded. There are inherent limitations in any system of internal control and accordingly even the most effective system can provide only reasonable, and not absolute, assurance with respect to the preparation of accurate financial information and the safeguarding of assets. The key features of the internal control system that operated throughout the year are described under the following headings:

- Control environment: particularly the definition of the organisation structure and the appropriate delegation of responsibility to operational management.
- Identification and evaluation of business risks and control objectives: particularly through a formal process of consideration and documentation of risks and controls which is periodically undertaken by the Board.
- Main control procedures: which include the setting of annual and longer term budgets and the monthly reporting of performance against them, agreed treasury management and physical security procedures, formal capital expenditure and investment appraisal approval procedures, and the definition of authorisation limits (both financial and otherwise).
- Monitoring: particularly through the regular review of performance against budgets and the progress of research activities undertaken by the Board. The Board reviews the operation and effectiveness of this framework on a regular basis. The Directors consider that there have been no weaknesses in internal controls that have resulted in any losses, contingencies or uncertainties requiring disclosures in the financial statements.

Annual General Meeting

The Annual General Meeting of the Group will take place on 1 July 2022. Full details are included in the Notice of Meeting that accompanies this Annual Report and is published on our website (www.itaconix.com).

James Barber
Chairman

7 June 2022

I am pleased to present the report on behalf of the Remuneration Committee.

The Committee is responsible for setting the remuneration policy of the Executive Directors and other senior staff, including terms of employment, salaries, any performance bonuses and share option awards.

Committee Composition

The members of the Remuneration Committee as at 7 June 2022 are James Barber as Chair, John Snow, and Charlean Gmunder. We are all Non-Executive Directors.

Committee Duties

The Company has established a formal and transparent procedure for developing policy on executive remuneration and for fixing the remuneration packages of individual Directors. No Director is involved in deciding his own remuneration.

Remuneration Policy

The key principles of the Remuneration Policy include:

- The need to attract, retain, and motivate executives who have capability to ensure the Group achieves its strategic objectives;
- The need to ensure that short term benefits and long term incentive plans are aligned with the interests of shareholders;
- The need to take into account the competitive landscape in the North American and European specialty chemicals industry and current best practices in setting appropriate levels of compensation; and
- The Committee to meet at least twice per year.

Director's Remuneration

The following table summarises the total gross remuneration for the qualifying services of the directors who served during the year to 31 December 2021.

Directors' Remuneration and Transactions

The Directors' emoluments in the year ended 31 December 2021 were:

	Basic salary	Benefits in kind	Retirement	Bonus	2021 Total	2020 Total
	$'000	$'000	$'000	$'000	$'000	$'000
Executive Director						
John R. Shaw	237	-	7	18	262	244
Non-Executive Directors						
James Barber	60	-	-	-	60	60
*Bryan Dobson**	45	-	-	-	45	45
John Snow III	46	-	-	-	46	46
Total	388	-	7	18	413	395

**Retired April 15, 2022*

Directors' Interests

The interests of the Directors in the share capital of the Company are disclosed below.

Directors' Interests	31 December 2021 Number of ordinary shares of 1p each	31 December 2020 Number of ordinary Shares of 1p each
John R. Shaw	44,961,686	44,076,733
John Snow III	2,576,841	2,576,841
James Barber	2,557,727	2,557,727
Bryan Dobson	1,038,045	1,038,045

None of the Directors has a service contract with the Group requiring more than twelve months' notice of termination to be given. None of the Directors had, either during or at the end of the year, any material interest in any contract of significance with the Company or its subsidiaries.

Executive Directors' Service Contracts

The Executive Director signed service contracts on his appointment. These contracts are not of fixed duration. The Chief Executive Officer's contract is terminable by either party giving six months' written notice.

Non-Executive Directors

The Non-Executive Directors signed letters of appointment with the Group for the provision of Non-Executive Directors' services, which may be terminated by either party giving written notice. The remuneration of the Non-Executive Directors is determined by the Board as a whole.

The Committee met six times during the financial year to 31 December 2021.

James Barber
Chairman of the Remuneration Committee

7 June 2022

AUDIT COMMITTEE REPORT

The Audit Committee is responsible for promoting the quality of internal controls and ensuring that the financial performance of Itaconix is reviewed and reported properly.

The Committee reviews reports on the interim and annual accounts, financial announcements, the Company's accounting and financial control systems, changes to accounting policies, the extent of non-audit services undertaken by the external auditor, and the appointment of the external auditor.

During the period the Audit Committee reviewed the draft interim reports and associated announcements. The Audit Committee considered the accounting policies and principles adopted in these accounts as well as significant accounting issues and areas of judgement and complexity.

Committee Composition

The terms of reference for the Audit Committee require the committee to consist of preferably three members but not less than two members and that a majority of the members shall be independent non-executives with at least one with recent and relevant financial experience.

The members of the Audit Committee as at 7 June 2022 are John Snow as Chair, James Barber, and Charlean Gmunder. We are all Independent Non-Executive Directors.

The Board is of the view that the Audit Committee has recent and relevant financial experience. John Shaw, CEO, and relevant management may attend Committee meetings by invitation.

Role of the Committee

The main duties of the Committee are set out in its terms of reference, which are available on Itaconix's website. The main items of business considered by the Committee included:

- Reviewing the Group's accounting policies and reports produced by internal and external audit functions;
- Considering whether the Group has followed appropriate accounting standards and made appropriate estimates and judgements, taking into consideration the views of the external auditor;
- Reporting its views to the Board of Directors if it is not satisfied with any aspect of the proposed financial reporting by the Group;
- Reviewing the adequacy and effectiveness of the Group's internal financial controls and its internal control and risk management systems;
- Reviewing the adequacy and effectiveness of the Group's anti-money laundering systems and controls for the prevention of bribery and receive reports on non-compliance, and
- Overseeing the appointment of and the relationship with the external auditor.

Financial Reporting

The Committee reviews whether suitable accounting policies have been adopted and whether management has made appropriate judgements and estimates. The Committee's remit includes reviews of accounting papers prepared by management providing details on the main financial reporting judgements as well as assessments of the impact of potential new accounting standards.

The Committee has concluded that the Annual Report and financial statements are prepared appropriately and provide the necessary information for shareholders to assess Itaconix's strategy and performance.

Risk Management and Internal Controls

Itaconix's risk and control management framework is designed to manage rather than eliminate the risk of failure to meet Itaconix's objectives. The system of controls can provide reasonable but not absolute assurances against material misstatement or loss. Itaconix faces a number of risks, the significant ones of which are set out in the section on Principal Risks and Uncertainties on page 12 to 13.

Through the control systems outlined in the Corporate Governance Report on pages 20 to 23, Itaconix operates an ongoing process of identifying, evaluating, and managing significant risks faced by the business. This process includes the following:

- Defined organisation structure and appropriate delegation of authority;
- Formal authorisation procedure for investments;
- Clear responsibility for management to maintain good financial control and the production and review of detailed, accurate and timely financial information;
- Identification of operational risks and mitigation plans developed by senior management; and
- Regular reports to the Board from the Executive Directors.

Itaconix remains, in substance, in early stage development and is currently implementing appropriate internal controls and processes to reflect its size and business complexity. The Committee has been kept up-to-date of progress in implementing these processes, reviewed the Board's processes, and the Committee is satisfied that the risk management and internal control systems in place are currently operating effectively.

External Auditor

BDO was appointed auditor of Itaconix during 2019. The Committee considers that its relationship with the auditor is working well and is satisfied with their effectiveness.

The Committee is responsible for implementing a suitable policy for ensuring that non-audit work undertaken by the auditor is reviewed so that it will not impact their independence and objectivity. The breakdown of fees between audit and non-audit services is provided in note 6 to Itaconix's financial statements.

The non-audit fees primarily relate to a read through of the interim financial statements of the Group and, as necessary, the Committee held private meetings with the auditor to review key items within its scope of responsibility.

For and on behalf of the Audit Committee

John I. Snow III
Chairman of the Audit Committee

7 June 2022

The Directors of Itaconix plc (registered number 08024489) submit their report prepared in accordance with Schedule 7 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 ('Schedule 7').

Principal Activities

The principal activities of the Group are the research and production of proprietary specialty polymers that meet significant customer needs, with a strategy of direct selling efforts to establish initial use of new polymers, with the option to also scale global demand through partnerships where desirable, with a focus on North America and Europe.

Most of the Group's activities are focused on homecare and personal care applications where consumer interest and desires for safer and more sustainable products are particularly high.

Website Publication

The Directors are responsible for ensuring the annual report and the financial statements are made available on a website. Financial statements are published on the Group's website in accordance with legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the Group's website is the responsibility of the Directors. The Directors' responsibility also extends to the ongoing integrity of the financial statements contained herein. Financial Instruments and Liquidity Risks Information about the use of financial instruments by the Company and its subsidiaries and the Group's financial risk management policies are given in note 18.

Directors and their Interests

The Directors of the Group at 31 December 2021 were:

James Barber (Chairman);
John R. Shaw (Chief Executive Officer);
Bryan Dobson (Non-Executive); and
John I. Snow III (Non-Executive);

James Barber was re-elected at the 2021 Annual General Meeting. In accordance with Article 90 of the Company's Articles of Association, John Shaw and John Snow will stand for re-election and Charlean Gmunder (appointed on 15 April 2022) will stand for election at the 2022 Annual General Meeting. Bryan Dobson stepped down from the Board in April 2022. Biographical details of all the Directors as at 31 December 2021 are given above on pages 17 to 18.

Company Secretary

Laura Denner was appointed Company Secretary on 1 September 2019.

Liability Insurance for Directors, Officers and Employees

Itaconix has purchased insurance to cover the Directors, officers and employees of Itaconix plc and its subsidiaries against defence costs and civil damages awarded following an action brought against them in their personal capacity whilst carrying out their professional duties for the Group.

Dividends

Itaconix is seeking primarily to achieve capital growth for its shareholders. Its intention is to retain future distributable profits, if any, and therefore the Company does not anticipate paying any dividends in the foreseeable future. The Directors therefore do not recommend payment of a dividend (2020: £nil).

Events after the Balance Sheet Date

22 April 2022, the Company issued 6,666,668 new ordinary shares via direct subscription for $0.4m of funding to support general growth working capital, predominately to strengthen finished goods inventories held in the EU to assure reliable and ready delivery times to EU customers.

Research and Development

Details of the Group's activities on research and development during the year are set out in the Strategic Report on pages 8 to 15 and Chief Executive Officer's Statement on pages 4 to 7.

Going Concern

Itaconix business activities, together with the factors likely to affect its future development, performance and position are set out in the Strategic Report and the financial position of Itaconix, its cash flows and liquidity position are described in the notes to the financial statements, in particular in the consolidated cash flow statement and in note 18 (financial instruments).

The financial statements have been prepared on a going concern basis. The Directors have reviewed the Parent Company's and the Group's going concern position taking account its current business activities, budgeted performance and the factors likely to affect its future development, set out in the Annual Report, and including the Group's objectives, policies and processes for managing its working capital, its financial risk management objectives and its exposure to credit and liquidity risks.

As described in note 2, the Directors have reviewed the Group's cash flow forecasts covering a period of at least 12 months from the date of approval of the financial statements, which foresee that the Group will be able to meet its liabilities as they fall due. However, the success of the business is dependent on customer adoption of our products in order to increase revenue and profit growth. Inability or delay to deliver this could result in the requirement to raise additional funds.

The Directors have also taken into consideration the continued impact of the Covid-19 pandemic and the war in Ukraine on the Group's revenues and supply chain. While the Group experienced some temporary negative impacts on revenues in 2021, these issues are not expected to persist in the near-term. The Directors have applied sensitivities to the timing, quantum, and growth of new customer projects in revenue models and have assessed alternate supply chains that have been developed by the Group to mitigate any issues to our customers.

The Directors have concluded that the circumstances set forth above represent a material uncertainty, which may cast significant doubt about the Parent Company and Group's ability to continue as a going concern. However, they believe that taken, as a whole, the factors described above enable the Parent Company and Group to continue as a going concern for the foreseeable future. The financial statements do not include the adjustments that would be required if the Parent Company and the Group were unable to continue as a going concern.

Substantial Shareholdings

In addition to the Directors' interests, as disclosed in the Director's Remuneration Report, the Company is aware of the following shareholders with a percentage holding amounting to 3% or more of the ordinary share capital based on the Company's shareholder register as of 31 December 2021:

Shareholder	Shares Held	% Holding
Hargreaves Lansdown Asset Management	74,867,056	16.9%
IP Group	50,357,638	11.4%
John R. Shaw	44,961,686	10.1%
Interactive Investor	35,180,655	7.9%
Halifax Share Dealing	27,494,398	6.2%
Octopus Investments	20,487,288	4.6%
Guy Broadbent	18,275,000	4.1%
AJ Bell Securities	15,718,325	3.5%
Barclay Smart Investor	13,592,554	3.1%

The percentage interest has been calculated on the total voting rights of 443,462,757, being the Company's issued share capital on 31 December 2021. No other person has reported an interest in the ordinary shares of the Company required to be notified to the Company.

Information Presented in Other Sections

Certain information required to be included in a directors' report by Schedule 7, including references to future developments, research and development, and financial instruments, can be found where applicable in the other sections of this Annual Report. All of the information presented in those sections is incorporated by reference into this Directors' Report and is deemed to form part of this report.

Greenhouse Gas Emissions

The 2018 Regulations introduced requirements under Part 15 of the Companies Act 2006 for an enhanced group of companies, which are defined as large by the Companies Act 2006, to disclose their annual energy use and greenhouse gas emissions, and related information. Under the 2018 Regulations, the Group is not currently defined as large and is considered a low energy user, with annual energy consumption less than 40 MWh. Based on Itaconix's dedication to reducing the planet's carbon footprint and addressing climate change, the Group has chosen to disclose its US subsidiary annual energy use and greenhouse gas emissions in the Sustainability Section on page 14.

STATEMENT OF DIRECTORS' RESPONSIBILITIES

Directors' Responsibilities

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 the law the Directors have elected to prepare the Group and Parent Company financial statements in accordance with UK adopted International Accounting Standards ("IFRS") and applicable law. 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 Group and Parent Company and of the profit or loss of the Group for that period. The directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the Alternative Investment Market. In preparing these financial statements, the Directors are required to:

- Select suitable accounting policies and then apply them consistently;
- Make judgements and accounting estimates that are reasonable and prudent;
- State whether they have been prepared in accordance with UK adopted International Accounting Standards ("IFRS"), subject to any material departures disclosed and explained in the financial statements; and
- Prepare the financial statements on a going concern basis unless it is inappropriate to presume that the Company will continue in business.

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 requirements of 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.

Website publication

The Directors are responsible for ensuring the annual report and the financial statements are made available on a website. Financial statements are published on the company's website in accordance with legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the company's website is the responsibility of the directors. The directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.

Information Given to the Auditor

Each of the persons who are Directors of the Company at the date when this report was approved confirms that:

- So far as the Director is aware, there is no relevant audit information (as defined in the Companies Act 2006) of which the Company's auditor is unaware; and

- The Directors have taken all steps that they ought to have taken as Directors to make themselves aware of any relevant audit information (as defined in the Companies Act 2006) 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.

Auditor

BDO, LLP have expressed their willingness to continue in office as auditor. A resolution concerning their re-appointment will be proposed at the 2022 Annual General Meeting.

Approved by the Board of Directors and signed on behalf of the Board,

John R. Shaw
Chief Executive Officer

7 June 2022

Opinion on the financial statements

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2021 and of the Group's loss for the year then ended;
- the Group financial statements have been properly prepared in accordance with UK adopted international accounting standards;

  the Parent Company financial statements have been properly prepared in accordance with UK adopted international accounting standards; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of Itaconix plc (the 'Parent Company') and its subsidiaries (the 'Group') for the year ended 31 December 2021 which comprise the consolidated income statement, the consolidated statement of comprehensive income, the consolidated and company balance sheets, the consolidated and company statements of changes in equity, the consolidated and company statements of cash flows and notes to the financial statements, including a summary of significant accounting policies.

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

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

Independence

We remain 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 FRC's Ethical Standard as applied to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Material uncertainty related to going concern

We draw attention to note 2 in the financial statements which sets out the Directors considerations over going concern and that the Group is dependent on customer adoption of the group's products in order to increase revenue and profit growth. Inability to deliver this could result in the requirement to raise additional funds within the next 12 months. As stated in note 2, these events or conditions, along with the other matters as set out in note 2, indicate that a material uncertainty exists that may cast significant doubt about the Parent Company and Group'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. We considered going concern to be a key audit matter based on our assessment of the significance of the risk and the effect on our audit strategy.

Our audit procedures included the following:

- Review of the internal forecasting process to confirm the projections are prepared by an appropriate level of staff that are aware of the detailed figures included in the forecast but also have an understanding of the entity's market, strategy and changes in the customer base and the potential impact that Covid-19 pandemic might have on these projections;
- Reviewing management's assessment of going concern through analysis of the Group's cash flow forecast and other projections through to 30 June 2023, including assessing and challenging the assumptions as to determine whether there is adequate support for the assumptions underlying the forecasts through comparison against post year-end results to date;
- Performing sensitivity analysis to consider cash flow requirements if the level of revenue and costs changes. This includes, taking account of the continuing impact of the Covid-19 pandemic and the

situation in Ukraine, reverse stress testing to ascertain what levels of cost increases or revenue decline cause a cash shortage at any point in management's post balance sheet assessment period and considering the likelihood that those fact patterns could occur;

- Reviewing the terms of the group's existing working capital facilities and any plan management has for future fund raising;
- Making inquiries of management as to their knowledge of events or conditions beyond the period of their assessment that impact the entity's ability to continue as a going concern;
- Reviewing post-balance sheet results, specifically the cash flow position against that budgeted; and

Considering the adequacy of the disclosures in the financial statements against our knowledge of the client and the requirements of the accounting standards.

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

Overview

Coverage	*100% (2020: 100%) of Group loss before tax* *99% (2020: 99%) of Group revenue* *100% (**2020**: 100%) of Group total assets*		
Key audit matters		**2021**	**2020**
	Revenue Recognition	X	X
	Valuation of Contingent Consideration	X	X
	Going Concern	X	X
Materiality	*Group financial statements as a whole* $100,000 (2020: $160,000) based on 3-year average loss before tax, adjusted for certain non-recurring transactions relating to the movement in contingent consideration in the year (2020: based on 3 year average loss before tax adjusted for certain non-recurring transactions relating to the movement in contingent consideration)		

An overview of the scope of our audit

Our Group audit was scoped by obtaining an understanding of the Group and its environment, including the Group's system of internal control, and assessing the risks of material misstatement in the financial statements at the Group level. We also addressed the risk of management override of internal controls, including assessing whether there was evidence of bias by the Directors that may have represented a risk of material misstatement.

The Group comprises two UK incorporated companies (including Itaconix Plc) and one US trading component. Based on our assessment of the Group, the US component was identified as a significant component and was subject to full scope audit for Group reporting purposes. This component accounted for 99% (2020: 99%), of the Group's revenue and 100% of the Group's loss before tax (2020: 100%). Full scope statutory audits were completed on the UK incorporated entities with targeted audit procedures performed over key risks. All procedures were performed by the Group audit team.

We also obtained an understanding of the internal control environment related to the financial reporting process and assessed the appropriateness, completeness and accuracy of Group journals and other adjustments performed on consolidation.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) we identified, including 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.

<table>
<tr><th colspan="2">Key audit matter</th><th>How the scope of our audit addressed the key audit matter</th></tr>
<tr><td>Revenue Recognition

Details of the Group's accounting policies applied during the period are given in note 2 on page 49 of the Consolidated Financial Statements.</td><td>The amounts reported in relation to revenue represent information of significant interest to many users of the financial statements. This puts revenue at a greater risk of manipulation, bias and misstatement.

Having regard to the potential for fraud in relation to revenue recognition, we considered there to be a significant audit risk arising from recognition of revenue.

The key audit matters related to revenue recognition are as follows:

• There is a risk that Group's revenue streams (generated from the sale of its core products for the homecare, industrial and personal care sectors) have not been recognised appropriately in line with their respective performance obligations, and that the revenue policy itself is not in accordance with appropriate accounting standards.

• The risk of a material misstatement was also focused on ensuring revenue around the year end (existence and completeness) was accurately recorded, taking account of contracted delivery terms to customers.

• the appropriateness of revenue recognition policy itself, as detailed in notes 3 & 4 to the consolidated financial statements.</td><td>With regards to the risk of material misstatement related to the recognition of revenue we performed the following procedures:

• We assessed whether the revenue recognition policies adopted by the Group comply with accounting standards by comparing the accounting policy to the requirements of IFRS 15 - Revenue from contracts with customers;
• Tested sample transactions occurring either side of the balance sheet date to invoice and evidence of delivery to check that they have been recorded in the correct period;
• Traced a sample of transactions throughout the year to original customer orders (to verify existence of sale) and despatch records signed by courier on despatch of goods and other supporting information including receipt of funds and proof of delivery;
• Confirmed revenue, by testing on a sample basis, transactions around the year end have been processed and recorded appropriately; and
• We performed procedures over required disclosures, taking account of IFRS 15 guidance, in the Group's Annual Report.

Key observations:

Based on the procedures performed, we consider that revenue has been recognised appropriately and in accordance with the Group's revenue recognition accounting policy.</td></tr>
</table>

Key audit matter		***How the scope of our audit addressed the key audit matter***
***Valuation of* Contingent Consideration** *Details of* the *Group's* accounting policies *applied during the period are given* in *Notes 2 (page 48) and 17* (page 62) of the Consolidated Financial Statements.	The Group's contingent consideration was restructured in FY18 retaining the previous contingent consideration mechanism (i.e., up to \$6m in shares), but with the window of time for potential achievement expanded to the end of 2022 and including all the revenues of the Group (which are primarily from products based on the acquired technology). Revenue forecasts produced by management form the basis of the valuation of contingent consideration. Critically, forecast revenues for the period to 2022 are a critical estimate, driving the fair value of the reported contingent consideration liability. The impact on changes to fair value as a result of variances in revenue assumptions are recognised in the Income Statement presenting volatility in reported results. Any change in estimated revenues or the discount rate in the period, will change the fair value of contingent consideration, with an equal and opposite entry recorded in the Income Statement.	Since this area includes significant management judgement, our procedures included: • Confirming that the revenue forecast used in the measurement of the liability is consistent with the information approved by the board; • Evaluated forecasts, in light of historical accuracy of management's forecasts and subsequent results; • Corroborating management's future forecasts, to supporting information (e.g purchase orders) to support management's calculation; • Testing the methodology applied in the calculations and the mathematical accuracy of management's model by recalculating the model, applying the inputs used by management; and; • Engaging BDO valuation specialists to assist us in assessing the appropriateness of discount rate used by management; • Performing sensitivity analysis on key assumptions; and • Evaluating business performance after year-end to understand extent of variance between actuals and forecasts **Key observations**: Based on the procedures performed, we noted no instances to suggest that management's judgements in estimating the contingent consideration were inappropriate.

Our application of materiality

We apply the concept of materiality both in planning and performing our audit, and in evaluating the effect of misstatements. We consider materiality to be the magnitude by which misstatements, including omissions, could influence the economic decisions of reasonable users that are taken on the basis of the financial statements.

In order to reduce to an appropriately low level the probability that any misstatements exceed materiality, we use a lower materiality level, performance materiality, to determine the extent of testing needed. Importantly, misstatements below these levels will not necessarily be evaluated as immaterial as we also take account of the nature of identified misstatements, and the particular circumstances of their occurrence, when evaluating their effect on the financial statements as a whole.

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

	Group financial statements		Parent Company financial statements	
	2021	2020	2021	2020
Materiality	$100,000	$160,000	$30,700	$65,800
Basis for determining materiality	Based on 5% of the 3 year average loss before tax, adjusted for certain non-recurring transactions relating to the movement in contingent consideration in the year		2% of Total Assets	
Rationale for the benchmark applied	This was considered to be a primary key performance indicator as it is relevant to the users of the financial statements which is evidenced by this metric being used to address the performance of the business by the board, and is consistently referenced within the RNS announcements released by the group.		Total Assets is considered to be a primary key performance indicator as it is relevant to the users of the financial statements for a holding company.	
Performance materiality	$75,000	$120,000	$23,000	$49,300
Basis for determining performance materiality	Performance materiality was set at 75% (2020: 75%). In reaching our conclusion on the level of performance materiality to be applied the main factor considered was our assessment of a number of factors including the expected total value of known and likely misstatements (based on past experience), our knowledge of the group's internal controls and management's attitude towards proposed adjustments.			

Component materiality

We set materiality for the significant component of the Group at 75% of Group materiality (2020: 75%) based on the size and our assessment of the risk of material misstatement of that component. Component materiality was $75,000 (2020: $120,000). In the audit of the component, we further applied a performance materiality level of 75% (2020: 75%) of the component materiality to our testing to ensure that the risk of errors exceeding component materiality was appropriately mitigated.

Reporting threshold

We agreed with the Audit Committee that we would report to them all individual audit differences in excess of $5,000 (2020: $8.000). We also agreed to report differences below this threshold that, in our view, warranted reporting on qualitative grounds.

Other information

The Directors are responsible for the other information. The other information comprises the information included in the Annual Report & Accounts 2021, other than the financial statements and our auditor's report thereon. 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.

Other Companies Act 2006 reporting

Based on the responsibilities described below and our work performed during the course of the audit, we are required by the Companies Act 2006 and ISAs (UK) to report on certain opinions and matters as described below.

Strategic report and Directors' report	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 Parent Company and its environment obtained in the course of the audit, we have not identified material misstatements in the Strategic report or the Directors' report.
Matters on which we are required to report by exception	We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion: • 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; or • certain disclosures of Directors' remuneration specified by law are not made; or • we have not received all the information and explanations we require for our audit.

Responsibilities of Directors

As explained more fully in the Statement of Directors' responsibilities, 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.

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.

Extent to which the audit was 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 are detailed below:

- We have identified and assessed the potential risks related to irregularities, including fraud, by considering the following:
    - Obtaining an understanding of the legal and regulatory framework in which the Group operates. We considered provisions of other laws and regulations that do direct effect on the financial statements but compliance with which may be fundamental to the Group's ability to operate. The

significant laws are considered to be international accounting standards in conformity with the Companies Act 2006, the Companies Act 2006 and relevant UK and US tax regulations.

- The audit team received training prior to performing the audit procedures required to provide assurance over compliance with relevant UK and US laws and regulations.
- Obtaining an understanding of how the Group is complying with those frameworks by making enquiries of directors and management, those responsible for legal and compliance procedures and the Company Secretary. We corroborated our enquiries through our review of board minutes and papers provided to the Audit Committee.
- Considering the processes and controls that the Group has established and the controls in place to mitigate risks in relation to non-compliance with laws and regulations.
  Making enquiry of Group's directors and management and external legal counsel concerning actual and potential litigation and claims.

- We assessed the susceptibility of the Group's financial statements to material misstatement, including how fraud might occur.

  Our audit planning identified fraud risks in relation to
    - Revenue recognition - existence and accuracy - has been assessed as a Key Audit Matter;
    - Contingent consideration – valuation - has been assessed as a Key Audit Matter; and
    - Management override.

  - We made enquiry of Group management to understand where they considered there was a susceptibility to fraud and regarding detection and response to the risk of fraud and any knowledge of actual, suspected or alleged fraud.
  - Reading the minutes of meetings of those charged with governance.
  - We considered the processes and controls that the Group has established to address risks identified, or that otherwise prevent, deter and detect fraud; and how management monitors the processes and controls.
  - Our procedures included journal entry testing, with a focus on large or unusual transactions based on our knowledge of the business; enquiries with Group management and focused testing as referred to in the Key Audit Matters section above.
  - Third party confirmations were obtained directly from the Group's external legal counsel to audit the completeness of claims and legal matters;
  - Review of financial statements disclosures and testing to supporting documentation;
  - Assessing whether the judgements made in making accounting estimates are indicative of potential bias; and
  - Performing analytical procedures to identify any unusual or unexpected relationships which may indicate risks of misstatement due to fraud.

Our audit procedures were designed to respond to risks of material misstatement in the financial statements, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery, misrepresentations or through collusion. There are inherent limitations in the audit procedures performed and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we are to become aware of it.

A further description of our responsibilities is available on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely to the Parent 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 Parent 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 Parent Company and the Parent Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Iain Henderson (Senior Statutory Auditor)
For and on behalf of BDO LLP, Statutory Auditor
London, UK

7 June 2022

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

CONSOLIDATED INCOME STATEMENT

For the year ended 31 December 2021

	Notes	**2021** $'000	2020 $'000
Revenue	4	**2,596**	3,292
Cost of sales		**(1,896)**	(2,138)
Gross profit		**700**	1,154
Other operating income	5	**203**	50
Administrative expenses		**(2,911)**	(2,595)
Group operating loss before exceptional items	6	**(2,008)**	(1,391)
Exceptional income / (expense) on revaluation of contingent consideration	17	**1,560**	(339)
Exceptional income on organizational restructuring		**-**	91
Finance income	8	**-**	-
Operating loss before tax from operations		**(448)**	(1,639)
Taxation	9	**(7)**	(7)
Loss for the year from operations		**(455)**	(1,646)
Loss for the year		**(455)**	(1,646)
Basic and diluted loss per share	10	**(0.1)**	(0.5)
Diluted loss per share	10	**(0.1)**	(0.5)

The accompanying notes 1 to 26 form an integral part of the financial statements.

CONSOLIDATED STATEMENT OF OTHER COMPREHENSIVE INCOME

For the year ended 31 December 2021

	Notes	2021 $'000	2020 $'000
Loss for the year		**(455)**	(1,646)
Items that will be reclassified subsequently to profit or loss			
Exchange gains in translation of foreign operations		**17**	8
Total comprehensive loss for the year, net of tax		**(438)**	(1,638)
Attributable to:			
Equity holders of parent		**(438)**	(1,638)

The accompanying notes 1 to 26 form an integral part of the financial statements.

CONSOLIDATED AND COMPANY BALANCE SHEETS

At 31 December 2021

		Group		Company	
		31 Dec 2021	31 Dec 2020	**31 Dec 2021**	31 Dec 2020
	Notes	**$'000**	$'000	**$'000**	$'000
Non-current assets					
Property, plant and equipment	12	402	501	-	-
Right-of-use assets	19	545	746	-	-
Investment in subsidiary undertakings	11	**-**	**-**	**1,074**	1,084
		947	1,247	**1,074**	1,084
Current assets					
Inventories	13	**1,369**	1,361	**-**	**-**
Trade and other receivables	14	**280**	463	**17**	49
Cash and cash equivalents	15	**683**	1,448	**444**	934
		2,332	3,272	**461**	983
Total assets		**3,279**	4,519	**1,535**	2,067
Financed by					
Equity shareholders' funds					
Equity share capital	20	**5,873**	5,718	**5,873**	5,718
Equity share premium		**47,641**	46,135	**47,641**	46,135
Own shares reserve		**(5)**	(5)	**(5)**	(5)
Merger reserve		**31,343**	31,343	**3,582**	3,582
Share based payment reserve		**10,386**	10,335	**1,309**	1,258
Foreign translation reserve		**(194)**	(211)	**(2,165)**	(2,150)
Retained deficit		**(94,395)**	(93,940)	**(55,965)**	(55,517)
Total equity		**649**	(625)	**270**	(979)
Non-current liabilities					
Contingent consideration	17	**1,116**	2,707	**1,116**	2,707
Note payable	16	-	51	**-**	-
Lease liabilities	19	**348**	476	**-**	**-**
		1,464	3,234	**1,116**	2,707
Current liabilities					
Trade and other payables	16	**1,020**	1,404	**149**	193
Notes payable	16	-	132	-	**-**
Contingent consideration	17	-	146	**-**	146
Lease liabilities	19	**146**	228	**-**	**-**
		1,166	1,910	**149**	339
Total liabilities		**2,630**	5,144	**1,265**	3,046
Total equity and liabilities		**3,279**	4,519	**1,535**	2,067

CONSOLIDATED AND COMPANY BALANCE SHEETS

At 31 December 2021

The Company has taken advantage of the exemption allowed under section 408 of the Companies Act 2008 and has not presented its own profit and loss in these financial statements. The loss for the year for the Company amounted to $448k (2020: $1,661). The financial statements of Itaconix plc, registered number 08024489, were approved by the Board of Directors for issue on 7 June 2022.

John R. Shaw	**James Barber**
Director	Director

The accompanying notes 1 to 26 form an integral part of the financial statements

CONSOLIDATED AND COMPANY STATEMENTS OF CHANGES IN EQUITY

For the year ended 31 December 2021

Consolidated statement of changes in equity

	Equity share capital	Equity share premium	Own shares reserve	Merger reserve	Share based payment reserve	Foreign translation reserve	Retained deficit	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
At 1 January 2020	3,677	46,135	(5)	31,343	10,317	(219)	(92,245)	(997)
Loss for the year	–	–	–	–	–	–	(1,646)	(1,646)
Share issuance proceeds	2,041	205	–	–	–	–	–	2,246
Share issuance expenses	–	(205)	–	–	–	–	(49)	(254)
Exchange differences on translation of foreign operations	–	–	–	–	–	8	–	8
Share based payments	–	–	–	–	18	–	–	18
At 31 December 2020	**5,718**	**46,135**	**(5)**	**31,343**	**10,335**	**(211)**	**(93,940)**	**(625)**
Loss for the year	–	–	–	–	–	–	(455)	(455)
Contingent consideration	26	120	–	–	–	–	–	146
Share issuance proceeds	129	1,428	–	–	–	–	–	1,557
Share issuance expenses	–	(42)	–	–	–	–	–	(42)
Exchange differences on translation of foreign operations	–	–	–	–	–	17	–	17
Share based payments	–	–	–	–	51	–	–	51
At 31 December 2021	**5,873**	**47,641**	**(5)**	**31,343**	**10,386**	**(194)**	**(94,395)**	**649**

Company statement of changes in equity

	Equity share capital	Equity share premium	Own shares reserve	Merger reserve	Share based payment reserve	Foreign translation reserve	Retained deficit	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
At 1 January 2020	**3,677**	**46,135**	**(5)**	**3,582**	**1,240**	**(2,273)**	**(53,807)**	**(1,451)**
Loss for the year	–	–	–	–	–	–	(1,661)	(1,661)
Share issuance proceeds	2,041	205	–	–	–	–	–	2,246
Share issuance expenses	–	(205)	–	–	–	–	(49)	(254)
Exchange differences on translation of foreign operations	–	–	–	–	–	123	–	123
Share based payments	–	–	–	–	18	–	–	18
At 31 December 2020	**5,718**	**46,135**	**(5)**	**3,582**	**1,258**	**(2,150)**	**(55,517)**	**(979)**
Loss for the year	–	–	–	–	–	–	(448)	(448)
Contingent consideration	26	120	–	–	–	–	–	146
Share issuance proceeds	129	1,428	–	–	–	–	–	1,557
Share issuance expenses	–	(42)	–	–	–	–	–	(42)
Exchange differences on translation of foreign operations	–	–	–	–	–	(15)	–	(15)
Share based payments	–	–	–	–	51	–	–	51
At 31 December 2021	**5,873**	**47,641**	**(5)**	**3,582**	**1,309**	**(2,165)**	**(55,965)**	**270**

The accompanying notes 1 to 26 form an integral part of the financial statements.

CONSOLIDATED AND COMPANY STATEMENTS OF CHANGES IN EQUITY
For the year ended 31 December 2021

The reserves described above have the purposes described below:

Share capital

Amount subscribed for share capital at par value.

Share premium

Amount subscribed for share capital in excess of nominal value less the cost of issuance of shares.

Own shares reserve

The reserve records the nominal value of shares purchased and held by the Employee Benefit Trust to satisfy the future exercise of options under the Group's share option schemes.

Merger reserve

This reserve arose as a result of a common control business combination on the formation of the Group. The premium on the issue of shares as part of a business combination is credited to this reserve.

Share based payment reserve

This reserve records the credit to equity in respect of the share based payment cost.

Foreign exchange translation reserve

This reserve arises on the translation of the assets and liabilities of overseas subsidiaries.

CONSOLIDATED AND COMPANY STATEMENTS OF CASH FLOWS

For the year ended 31 December 2021

		Group		Company	
		2021	2020	**2021**	2020
	Notes	**$'000**	**$'000**	**$'000**	**$'000**
Net cash outflow from operating activities	21	**(2,023)**	(1,157)	**(78)**	(74)
Proceeds from sale of property, plant and equipment		**20**	20	**-**	-
Purchase of property, plant and equipment		**(68)**	**-**	**-**	-
Cash loaned to subsidiary undertakings		**-**	**-**	**(1,350)**	(707)
Net cash (outflow) / inflow from investing activities		**(48)**	20	**(1,350)**	(707)
Cash received from issue of shares		**1,557**	2,246	**1,557**	2,246
Transactions costs paid on the issue of shares		**(42)**	(254)	**(42)**	(254)
Proceeds from government secured debt		**-**	183	**-**	-
Repayment of lease liability		**(167)**	(327)	**-**	-
Interest paid - leases		**(42)**	(28)	**-**	-
Net cash inflow from financing activities		**1,306**	1,820	**1,515**	1,992
Net (outflow) / inflow in cash and cash equivalents		**(765)**	683	**(490)**	694
Cash and cash equivalents at beginning of year		**1,448**	765	**934**	240
Cash and cash equivalents at end of year		**683**	1,448	**444**	934

The accompanying notes 1 to 26 form an integral part of the financial statements

NOTES TO FINANCIAL STATEMENTS
For the year ended 31 December 2021

1. General Information

Itaconix plc ("the Parent Company") is a public limited company incorporated in England and Wales. The address of its registered office and principal place of business is set out on page 70. The principal accounting policies adopted by the Group are set out in note 2. The nature of the Group's operations and its principal activities are set out in the Strategic Report. The principal activities of the Parent Company and its subsidiaries are described in note 4. The financial statements have been presented in US Dollars and rounded to the nearest thousand ($'000) unless otherwise indicated.

2. Accounting policies

Basis of presentation

The Group and parent company financial statements have been prepared in accordance with UK adopted International Accounting Standards ("IFRS") and the provisions of the Companies Act 2006. The financial information has been prepared on the historical cost basis except that financial instruments are stated at their fair value. Amounts are rounded to the nearest thousand, unless otherwise stated.

While the Parent Company's functional currency is British Pounds Sterling, the Group's financial statements have been presented in US Dollars. The directors believe this better reflects the underlying nature of the business. Approximately ninety-five per cent of the Group's revenue and operating costs are denominated in US Dollars. The exchange rates used for translation of British Pounds Sterling amounts are 1.3536 US Dollars to British Pounds Sterling as at 31 December 2021 and 1.3798 US Dollars to British Pounds Sterling as the average rate prevailing during 2021.

Itaconix applied all standards and interpretations endorsed by the UK Endorsement Board (UKEB) that were effective as of 1 January 2020. The accounting policies set out below have, unless otherwise stated, been applied consistently to all years presented in this financial information.

The preparation of the financial statements, in conformity with IFRS, requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying Itaconix's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in note 3.

Adoption of new and revised standards

There are no new standards impacting the Group that have been adopted in the annual financial statements for the year ended 31 December 2021, which have given rise to material changes in the Group's accounting policies.

Going concern

The financial statements have been prepared on a going concern basis. The Directors have reviewed the Company's and the Group's going concern position taking account its current business activities, budgeted performance and the factors likely to affect its future development, set out in the Annual Report, and including the Group's objectives, policies and processes for managing its working capital, its financial risk management objectives and its exposure to credit and liquidity risks.

The Group made a loss before exceptional items for the year of $2,008k, had Net Current Assets at the period end of $1,262k and a Net Cash Outflow from Operating Activities of $2,023k. Primarily, the Group meets its day to day working capital requirements through existing cash resources and had on hand cash, cash equivalents and short-term deposits at the balance sheet date of $683k.

During the year, the Group maintain a flat cost base of expenditures and successfully raised funds of $1.5m. Post year end, the Group successfully raised funds of $0.4m to support European inventories.

The Directors have reviewed the Group's cash flow forecasts covering a period of at least 12 months from the date of approval of the financial statements, which foresee that the Group will be able to meet its liabilities as they fall due. However, the success of the business is dependent on customer adoption of our products in order to increase revenue and profit growth and continuing to control the Group and Parent Company's cost base. Inability to deliver this could result in the requirement to raise additional and external working capital.

The Directors have also taken into consideration the continued impact of the Covid-19 pandemic and the war in Ukraine on the Group's revenues and supply chain. While the Group experienced some temporary negative impacts on revenues in 2021 due to the pandemic, these issues are not expected to persist in the near-term. The Directors have applied sensitivities to the revenue and cost models and have assessed alternate supply chains that have been developed by the Group to mitigate any issues to our customers.

The Directors have concluded that the circumstances set forth above represent a material uncertainty, which may cast significant doubt about the Parent Company and Group's ability to continue as a going concern. However, they believe that, taken as a whole, the factors described above enable the Parent Company and Group to continue as a going concern for the foreseeable future. The financial statements do not include the adjustments that would be required if the Parent Company and the Group were unable to continue as a going concern.

Consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (its subsidiaries) made up to 31 December each year. The Company controls an investee if, and only if the Company has the following:

- Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- Exposure of rights, to variable returns from its involvement with the investee; and
- The ability to use its power over the investee to affect its returns.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by the Group.

All intra-group transactions, balances, income and expenses are eliminated on consolidation.

In accordance with Section 408 of the Companies Act 2006, no profit and loss account is presented for the Company.

Business combinations and contingent consideration

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at the acquisition date fair value, and the amount of any non-controlling interest in the acquiree. For each business combination, the Group elects whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition related costs are expensed as incurred and included in administrative expenses.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date.

Any contingent consideration to be transferred by the acquirer is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration are recognised in accordance with IFRS 9 in profit or loss.

The fair value of contingent consideration is determined by reference to the projected financial performance in relation to the specific contingent consideration criteria for each acquisition.

NOTES TO FINANCIAL STATEMENTS

For the year ended 31 December 2021

Revenue recognition

Revenue is recognised to the extent that services have been delivered and the revenue can be reliably measured, regardless of when the payment is being made. Revenue is measured at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty.

Revenue from the sale of goods is recognised when performance obligations have been satisfied. The delivery date is usually the date on which performance obligations have been satisfied. However, where goods are supplied when title does not irrevocably pass on delivery, it may not be appropriate to recognise all the revenue immediately. The Group provides for potential sales returns based on its actual experience of returns from customers in such cases. Where it has no such history it makes estimates by reference to minimum sales commitments in the relevant contract, or by reference, where available, to customer retail sales data or customer inventory levels at the financial year end, or based on other reasonable and relevant judgements.

Leases

Leases are accounted for under IFRS 16: Leases. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases.

IFRS 16 requires lessees to recognize a lease liability that reflects the net present value of future lease payments and a corresponding “right-of-use asset” in all lease contracts, although lessees may elect not to recognize lease liabilities and right-of-use assets in respect of short-term leases or leases of assets of low value.

The Group has elected not to recognize right-of-use assets and lease liabilities in respect of certain leases of office equipment of low value or of short term. The lease payments associated with these leases is recognized as an expense on a straight-line basis over the lease term.

At inception of a contract, the Group assesses whether a contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group recognizes a right-of-use asset and a corresponding lease liability at the lease commencement date. The lease liability is initially measured at the present value of the following lease payments:

- fixed payments;
- variable payments that are based on index or rate;
- the exercise price of any extension or purchase option if reasonably certain to be exercised;
- penalties for terminating the lease, if relevant; and
- other payments to the landlord relating to the leased asset which are determined to be in substance lease payments.

Judgement is applied to determine whether common area expenses paid to the landlord are determined to be lease or non-lease payments. (See note 3)

The lease payments are discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group’s incremental borrowing rate. The Group has used its incremental borrowing rate as the discount rate.

The right-of-use assets are initially measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs. The right-of-use assets are depreciated over the period of the lease term, or, if earlier, the useful life of the asset, using the straight-line method. The lease term includes periods covered by an option to extend, if the Group is reasonably certain to exercise that option. In addition, the right-of-use assets may during the lease term be reduced by impairment losses, if any, or adjusted for certain remeasurements of the lease liability.

On 28 May 2020, the IASB issued final amendments to IFRS 16 related to Covid-19 rent concessions for lessees. The amendments modify the requirements of IFRS 16 to permit lessees to not apply modification accounting to certain leases where the contractual terms have been affected due to Covid-19 (e.g. rent holidays or other rent concessions). The amendments are effective for periods beginning on or after 1 June 2020, with earlier application permitted. The Group did not adopt this standard as no such concessions were applicable.

Government funding, grants and research income

Government grants and research income are recognised as a credit to the income statement where there is reasonable assurance that they will be received, and all associated conditions will be complied with.

When the income relates to an expense item, it is recognised as income over the period necessary to match it on a systematic basis to the costs that it is intended to compensate. Where the income relates to an asset, it is recognised as deferred income and released to income in equal annual amounts over the expected useful life of the related asset.

The Paycheck Protection Programme ('PPP') loan received in 2020, was initially recognised as a deferred income liability on the balance sheet of the Group and remained as such until the loan was forgiven by the Small Business Administration in the United States, which evidenced there was reasonable assurance that the entity complied with the conditions associated with the terms of the PPP. At that point, the monies were released to the income statement as an income-related grant and presented as other operating income.

Research and development costs

Research costs are expensed as incurred. Development expenditure on an individual project is recognised as an intangible asset only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the asset and the ability to measure reliably the expenditure during development.

Following initial recognition of the development expenditure as an asset, the cost model is applied requiring the asset to be carried at cost less any accumulated amortisation and accumulated impairment losses. Amortisation of the asset begins when development is complete and the asset is available for use. It is amortised over the period of expected future benefit. During the period of development, the asset is tested for impairment annually.

Foreign currencies

Transactions in foreign currencies are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities in foreign currencies are translated at the rates of exchange ruling at the year-end date. Non-monetary items that are measured at historical cost in a foreign currency are translated at the exchange rate at the date of the transaction. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

Any exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were initially recorded are recognised in the income statement in the period in which they arise. Exchange differences on non-monetary items are recognised in the statement of comprehensive income to the extent that they relate to a gain or loss on that non-monetary item taken to the statement of comprehensive income, otherwise such gains and losses are recognised in the income statement.

The assets and liabilities in the financial statements of foreign subsidiaries and those of the parent company where the functional and presentational currency differ, are translated at the rate of exchange ruling at the year-end date. Income and expenses are translated at the actual rate. The exchange differences arising from the retranslation of the opening net investment in subsidiaries are taken directly to the 'Foreign currency retranslation reserve' in equity. On disposal of a foreign operation the cumulative translation differences (including, if applicable, gains and losses on related hedges) are transferred to the income statement as part of the gain or loss on disposal.

Property, plant and equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and any accumulated impairment in value. Such cost includes the cost of replacing part of the plant and equipment when that cost is incurred, if the recognition criteria are met.

Depreciation is calculated to write off the cost less estimated residual value of all tangible assets over their expected useful economic life on a straight-line basis. The rates generally applicable are:

Plant and equipment	4-7 years
Short leasehold improvements	5 years
Computer and office equipment	3 years

Financial assets

Financial assets are recognised in Itaconix's and the Company's statement of financial position when Itaconix and the Company become party to the contractual provisions of the instrument. Under IFRS 9 the classification of financial assets is based both on the business model and cash flow type under which the assets are held. There are three principal classification categories for financial assets: amortised cost; fair value through other comprehensive income; and fair value through profit or loss. Itaconix has not classified any of its financial assets as fair value through other comprehensive income.

Amortised cost

These assets are non-derivative financial assets held under the 'held to collect' business model and attracting cash flows that are solely payments of principal and interest. They comprise trade and other receivables and cash and cash equivalents. They are initially measured at fair value plus transaction costs, and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

Impairment provisions for trade and other receivables are calculated using an expected credit loss model. Under this model, impairment provisions are recognised to reflect expected credit losses based on combination of historic and forward-looking information, the amount of such a provision being the difference between the net carrying amount and the present value of the future expected cash flows associated with the impaired receivable. For trade receivables, which are reported net; such provisions are recorded in a separate allowance account. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

Cash, cash equivalents and investments

Cash and cash equivalents in the balance sheet comprise cash at bank and in hand.

Income taxes

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates and laws that are enacted or substantively enacted by the balance sheet date.

Deferred income tax is recognised on all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements, with the following exceptions:

- Where the temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss; and
- Deferred income tax assets are recognised only to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, carried forward tax credits or tax losses can be utilised.

Deferred income tax assets and liabilities are measured on an undiscounted basis at the tax rates that are expected to apply when the related asset is realised or liability is settled, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

Income tax is charged or credited directly to equity if it relates to items that are credited or charged to equity. Otherwise income tax is recognised in the income statement.

NOTES TO FINANCIAL STATEMENTS
For the year ended 31 December 2021

Financial liabilities

Financial liabilities are classified as either financial liabilities at fair value through profit or loss or other financial liabilities.

Financial liabilities at fair value through profit or loss

Financial liabilities are stated at fair value with differences taken to the consolidated income statement. Interest on financial liabilities up to maturity is included in the finance costs line item in the consolidated income statement.

Trade and other payables

Trade payables and other payables are not interest bearing and are stated at their full value on initial recognition. For disclosure purposes, the fair values of trade and other payables are estimated at the present value of future cash flows, discounted at the market rate of interest at the reporting date. As trade payables and other payables are short term in nature as at the reporting date, the carrying value is considered to be a reasonable approximation of fair value.

Other financial liabilities

Other financial liabilities are initially measured at fair value, net of transaction costs. They are subsequently measured at amortised costs using the effective interest method, with interest recognised on an effective rate basis.

Inventory valuation

Inventories are stated at the lower of cost and net realisable value. Cost includes all costs incurred in bringing each product to its present location and condition.

Share based payments

The Company issues equity-settled share-based payments to certain employees and these payments are measured at fair value (excluding the effect of non-market-based vesting conditions) at the date of the grant using appropriate pricing models. 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 Company's estimate of shares that will eventually vest and adjusted for the effect of non-market-based vesting conditions.

At the date of each statement of financial position, the Company revises its estimate of the number of equity instruments that are expected to become exercisable. It recognises the impact of the revision of original estimates, if any, in the income statement, and a corresponding adjustment is made to equity over the remaining vesting period. The fair value of the awards and ultimate expense are not adjusted on a change in market vesting conditions during the vesting period.

The value of share-based payment is taken directly to reserves and the charge for the period is recorded in the income statement. Itaconix's scheme, which awards shares in the parent entity, includes recipients who are employees in all subsidiaries. In the consolidated financial statements, the transaction is treated as an equity-settled share-based payment, as Itaconix has received services in consideration for equity instruments. An expense is recognised in the Group income statement for the fair value of share-based payment over the vesting year, with a credit recognised in equity.

In the parent company's and subsidiaries' financial statements, the awards, in proportion to the recipients who are employees in said subsidiary, are treated as an equity-settled share-based payment, as the subsidiaries do not have an obligation to settle the award. An expense for the grant date fair value of the aware is recognised over the vesting year, with a credit recognised in equity. The credit is treated as a capital contribution, as the parent company is compensating the subsidiaries' employees with no cost to the subsidiaries as there is no expectation to recharge the cost. In the parent company's financial statements, there is no share-based payment charge where the recipients are employed by a subsidiary, with the parent company recognising an increase in the investment in the subsidiaries as a capital contribution from the parent company and a credit to equity.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities. Equity instruments issued by the Group are recorded at the proceeds received, net of direct issue costs. Dividends and distributions relating to equity instruments are debited direct to equity.

Exceptional items

The Group has classified the finance income, movement on investment in associate, organizational restructuring, and the fair value adjustment of the contingent consideration as exceptional items in the income statement. These items are not considered to reoccur and are of such significance to the results that they have been presented as exceptional to provide a fair and balanced presentation in the financial statements.

3. Critical accounting assumptions and key sources of estimation uncertainty

The preparation of the Group's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent assets and liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Judgements and estimates

In the process of applying the Group's accounting policies, management has made a number of judgements and estimates. Those which have the most significant effect on the amounts recognised in the financial statements are summarised below:

Judgements

Valuation of contingent consideration

The value of any contingent consideration is also reviewed at each period end by way of comparison to the value of expected future payments, as estimated using appropriate methodologies, e.g. discounted cash flow techniques. See note 17 for further details.

Fair value of Group indebtedness (Company only)

The fair value of amounts owing from Group companies is impaired in those cases where the subsidiary is, at the balance sheet date, both illiquid and not yet generating positive cash flows, or otherwise highly unlikely to repay such indebtedness (See note 14).

IFRS 16 – Lease Accounting - lease term, non-lease components

The determination of the lease term for some lease contracts of the Group is based on the consideration as to whether the Group is reasonably certain to exercise lessee options.

Judgement is applied to determine whether common area expenses paid to the landlord are determined to be lease or non-lease payments. Consideration is made to the nature and variability of costs incurred and other terms within such arrangements. (See note 19)

Estimates

Valuation of contingent consideration

The value of any contingent consideration is also reviewed at each period end by way of comparison to the value of expected future payments, as estimated using appropriate methodologies, e.g. discounted cash flow techniques. See note 17 for further details.

Share based payment cost

The estimation of share based payment costs requires the selection of an appropriate valuation model, considerations as to the inputs necessary for the valuation model chosen and the estimation of the number of awards that will ultimately vest, inputs for which arise from judgements relating to the probability of meeting non-market performance conditions and the continuing participation of employees (See note 22).

4. Revenue

Revenue recognised in the Group income statement is analysed as follows:

	2021	2020
	$'000	$'000
Sale of goods	**2,596**	3,292
	2,596	3,292

Geographical information

	2021	2020
	$'000	$'000
North America	**2,410**	2,869
Europe	**186**	423
	2,596	3,292

The revenue information is based on the location of the customer.

Segmental information

	2021	2020
	$'000	$'000
Cleaning	**1,812**	2,572
Hygiene	**509**	299
Beauty	**220**	426
Other/Reserve	**55**	(5)
	2,596	3,292

Net assets of the Group (being total assets less total liabilities) are attributable to geographical locations as at 31 December 2021 as follows:

	2021	2020
	$'000	$'000
North America	**1,106**	932
Europe	**(457)**	(1,557)
	649	(625)

5. Other operating income

Other operating income arises mainly from sale of fixed assets and government funding, grants and research income. Since it is not considered to be part of the main revenue generating activities, the Group presents this income separately from revenue.

	2021 **$'000**	2020 $'000
Profit on sale of assets	**20**	20
Funding, grant and research income	**183**	30
	203	50

6. Group operating loss

This is stated after charging / (crediting):

	2021 **$'000**	2020 $'000
Auditor's remuneration:		
Audit of the financial statements	**10**	10
Audit of the subsidiaries	**115**	121
Non-audit services	**-**	4
Total fees	**125**	135
Equity settled share based payment expense	**51**	18
Employer's national insurance (credit) associated with vested share options	**-**	-
Depreciation of owned assets (note 12)	**167**	200
Amortisation of right-of-use assets (note 19)	**201**	198
Profit on disposal of lease liability	**-**	(91)
Research and development expenditure	**79**	130
Foreign exchange differences	**-**	55
Funding income related to Covid-19	**(183)**	-
Profit on disposal of equipment	**(20)**	(20)

7. Staff costs

Staff costs for the Group, including Directors, consist of:

	2021 **$'000**	2020 $'000
Wages and salaries	**1,772**	1,443
Invoiced by third parties	**-**	-
Post-employment benefits	**41**	34
Equity settled share based payment expense	**133**	18
	1,946	1,495

Details of Directors' fees are included in the Directors' Remuneration Report on page 24 to 25.

Details of key management personnel fees are included in note 23.

The average monthly number of Group employees, including Directors, during the year was made up as follows:

	2021 **No.**	2020 No.
Executive Directors	**1**	1
Non-executive Directors	**3**	3
Research and development	**4**	4
Finance and administration	**2**	2
Sales	**2**	2
Production	**4**	3
Contract staff	**1**	1
	17	16

Itaconix plc had no employees other than the Non-executive Directors.

8. Finance income

	2021 **$'000**	2020 $'000
Interest receivable on bank deposits	**-**	-

9. Taxation

	2021 **$'000**	2020 $'000
Corporation tax credits		
Prior years' corporation tax credits	**-**	-
Current year corporation tax liability	**(7)**	(7)
Corporation tax credits	**(7)**	(7)

During the year ended 31 December 2021, the Group had a taxation expense of $7k (2020: $7k) of which relates a provision of $7k for US taxation payable in respect of 2021 by the US subsidiary.

Total tax on loss on ordinary activities

The tax for the year can be reconciled to the loss per the income statement as follows:

	2021 **$'000**	2020 $'000
Loss before tax	**(448)**	(1,639)
Loss on ordinary activities multiplied by standard UK corporation tax rate of 19%	**(85)**	(311)
Effects of:		
Disallowed expenses & non-taxable income	**(287)**	80
Adjustments in respect of prior periods	**(2,904)**	73
Other timing differences	**5**	-
Movement in deferred tax not recognised	**3,278**	165
Total tax expense for the year	**7**	7

Deferred tax

The Group has the following net deferred tax asset which is not recognised:

	2021	2020
	$'000	$'000
Accelerated capital allowances	**3,043**	2,304
Other timing differences	**545**	509
Tax losses carried forward	**14,166**	9,333
Share based payments	**-**	-
	17,754	12,146

The net deferred tax asset is not recognised as there is insufficient evidence of future taxable profits against which the asset will be available for offset. Certain operating losses will expire in 2030 if no profits are generated to offset the loss carry forwards. These losses are also subject to certain regulatory restrictions.

Tax rate and tax rate changes

The main rate of UK corporation tax was 19% from 1 April 2015. An increase in the standard rate of UK corporate tax from 19% to 25% is enacted and will take effect 1 April 2023.

The US federal tax rate is 21% as of 1 January 2018.

10. Loss per share

Basic loss per share is calculated by dividing the loss attributable to ordinary shareholders by the weighted average number of ordinary shares in issue during the year.

	2021	2020
Loss	**$'000**	$'000
Loss for the purposes of basic and diluted loss per share	**(455)**	(1,646)
Weighted average number of ordinary shares for the purposes of basic and diluted loss per share ('000)	**438,808**	344,970
Basic and diluted loss per share	**(0.1)¢**	(0.5)¢

The loss for the period and the weighted average number of ordinary shares for calculating the diluted earnings per share for the period to 31 December 2021 are identical to those used for the basic earnings per share. This is because the outstanding share options (note 22) would have the effect of reducing the loss per ordinary share and would therefore not be dilutive.

11. Investment in subsidiary undertakings

In prior years, management has fully impaired the intangible assets arising on acquisition of Itaconix Corporation and has also impaired the value of the investment in Itaconix Corporation in the Company balance sheet proportionate to its shareholding.

	Company
	$000
At 1 January 2020	1,053
Foreign translation adjustment	31
At 31 December 2020	1,084
Foreign translation adjustment	(10)
At 31 December 2021	**1,074**

Name	**Principal activity**	**Place of incorporation and operation**	**Proportion of ownership interest**
Direct investments			
Itaconix (U.K.) Limited (1)	UK operating company	England	100%
Itaconix EBT Limited (1)	Trustee of Itaconix employee benefit trust	England	100%
Indirect investments			
Itaconix Corporation (2)	Trading US subsidiary of Itaconix (U.K.) Ltd	USA	100%

(1) The registered address is Fieldfisher, LLP, Riverbank House, 2 Swan Lane, London, EC4R 3TT, UK
(2) The registered address is 2 Marin Way, Stratham, NH 03885, USA

12. Property, plant and equipment

Group	Computer and office equipment $'000	Plant and equipment $'000	Short Leasehold improvements $'000	Total $'000
Cost				
At 1 January 2020	25	1,236	96	1,357
Additions	-	-	-	-
Impairment	-	-	-	-
Disposals	-	-	-	-
At 31 December 2020	25	1,236	96	1,357
Additions	-	68	-	68
Impairment	-	-	-	-
Disposals	-	-	-	-
At 31 December 2021	**25**	**1,304**	**96**	**1,425**
Accumulated depreciation				
At 1 January 2020	25	563	68	656
Charge	-	181	19	200
Eliminated on disposal	-	-	-	-
At 31 December 2020	25	744	87	856
Charge	-	158	9	167
Eliminated on disposal	-	-	-	**-**
At 31 December 2021	**25**	**902**	**96**	**1,023**
Carrying Amount				
At 31 December 2021	**-**	**402**	**-**	**402**
At 31 December 2020	-	492	9	501

In 2021, some assets were sold and $20k gain was recognized on the sale of the assets.

13. Inventories

Group	**2021 $'000**	2020 $'000
Raw materials	**266**	279
Work in progress	**28**	6
Finished goods	**1,171**	1,111
Inventory reserve	**(96)**	(35)
	1,369	1,361

14. Trade and other receivables

Current assets	Group		Company	
	2021	2020	**2021**	2020
	$'000	$'000	**$'000**	$'000
Trade receivables	**247**	411	-	-
Other receivables	**33**	52	17	49
	280	463	17	49

Trade receivables are non-interest bearing and are generally on 30 day terms.

As at 31 December 2021, a provision of $20k (2020: $86) has been made to trade receivables that were considered to be impaired. Amounts due from Group undertakings have been classified as current. The Company does not consider any of the amounts due from Group undertakings to be overdue.

In respect of the Company

- There is significant doubt as to the future recoverability of these balances, and as such, a provision for bad and doubtful debts has been raised against the amounts due from Group undertakings. To the extent the counter party is unable to do so, the Group does not intend to recall the amounts due, within one year.
- As at 31 December 2021 the balance of the fair value of debt from Group undertakings before adjustment for impairment is $47,783k (2019: $44,696k).
- The loss for the year includes a release of fair value impairment of Group indebtedness of $1,927k resulting from a movement in provisions for this indebtedness (2020: $1,224k).

As at 31 December, the analysis of trade receivables that were past due but not impaired is as follows:

Group	Total $'000	Neither past due nor impaired $'000	<30 days $'000	30–60 Days $'000	60–90 days $'000	90–120 days $'000	>120 Days $'000
2021	247	-	233	13	-	-	1
2020	411	-	404	-	-	-	7

The fair value of amounts owing from Group companies to the Company has been impaired to the extent the subsidiary is, at the balance sheet date, both illiquid and not yet generating positive cash flows, or otherwise unlikely to repay such indebtedness. The Group provides against trade receivables where there are significant doubts as to future recoverability based on prior experience, on assessment of the current economic climate and on the length of time that the receivable has been overdue.

Non-current assets	Group		Company	
	2021	2020	**2021**	2020
	$'000	$'000	**$'000**	$'000
Amounts owed by Group companies	-	-	-	-
	-	-	-	-

15. Cash and cash equivalents

Cash and cash equivalents comprise cash held by the Group and short-term bank deposits with a maturity of less than three months. The carrying amount of these assets approximates their fair value.

Analysis of cash and cash equivalents disclosed in the cash flow statement:

	Group		Company	
	2021	2020	**2021**	2020
	$'000	$'000	**$'000**	$'000
Cash at bank and in hand	**683**	1,448	**444**	934

Credit, liquidity and market risk

The Group's principal financial assets are bank balances. The credit risk on these assets is limited because the counterparties are banks with high credit ratings assigned by international credit rating agencies. The Directors have carefully reviewed the carrying value of the Group's financial assets and consider that at the date of this report no impairment in those values is anticipated.

16. Current liabilities

Current liabilities

	Group		Company	
	2021	2020	**2021**	2020
	$'000	$'000	**$'000**	$'000
Trade payables and other payables	**663**	1,088	**21**	57
Accruals	**357**	316	**128**	136
Note payable	**-**	132	**-**	-
Contingent consideration	**-**	146	**-**	146
Lease liabilities (note 19)	**146**	228	**-**	-
	1,166	1,910	**149**	339

The US Government provided support to US companies during the Covid-19 pandemic through the Small Business Administration (SBA) Paycheck Protection Program (SBA PPP), the US Corporation applied for support under the SBA PPP and received a note payable for $183k in 2020. The note bears interest at one per cent (1.00%) and is payable over 18 months beginning on 6 December 2020. In May 2021, the SBA formally forgave the SBA PPP loan in full. The forgiveness of the loan was for the outstanding principal and any interest on the loan amount.

The Directors consider that the carrying amount of trade payables, other payables and note payable approximate to their fair value.

17. Contingent Consideration

	Contingent consideration			
	Group		Company	
	2021	2020	**2021**	2020
	$'000	**$'000**	**$'000**	**$'000**
As at 1 January	**2,853**	2,441	**2,853**	2,441
Movement in fair value and discounting unwind	**(1,560)**	339	**(1,560)**	339
Foreign exchange effect	**(31)**	73	**(31)**	73
Settlement of contingent consideration	**(146)**	-	**(146)**	-
As at 31 December	**1,116**	2,853	**1,116**	2,853
Current	**-**	146	**-**	146
Non-current	**1,116**	2,707	**1,116**	2,707

As part of the purchase agreement with the previous owners of Itaconix Corporation, a contingent consideration was agreed with certain of the sellers (the "Sellers"). This would be payable to the Sellers, subject to the achievement of revenue targets for products based on the technology acquired for the calendar years 2017 to 2020, based on 50% of incremental annual net sales value above $3m in 2017 and in excess of the prior year for 2018 to 2020 inclusive (and no less than $3m). The deferred performance-related consideration is capped at $6m in aggregate. Such deferred performance consideration, if any, would be satisfied annually entirely in new ordinary shares of Itaconix plc at the then prevailing price.

During 2018, in conjunction with the fund raise, a restructuring of the contingent consideration was executed. The contingent consideration was restructured into two components:

- A one-time issue of 15 million new Itaconix plc shares to the Sellers.
- The continuation of the previous contingent consideration mechanism (i.e. up to $6m in shares), but with the window of time for potential achievement expanded to the end of 2022 (from the end of 2020) and including all the revenues of the Group (which are primarily from products based on the acquired technology in any event).

It should also be noted that the second component summarised above is intended to serve as an incentive programme for the two members of management (John Shaw and Yvon Durant) who are also Sellers and are entitled to 63% of the total contingent consideration. Accordingly, they were not eligible for any cash bonus or other share incentive programme for the years 2018 to 2020 inclusive. Simultaneously, the merger agreement with the former shareholders of Itaconix Corporation and related agreements were amended to remove various restrictive clauses, including minimum funding requirements and employment terms.

Based on the share price at the execution of the restructuring agreement in 2018, the 15m shares had a value of £0.3m which was expensed immediately.

In respect of 2021, the deferred consideration was valued using a discounted cash flow-based assessment of the expected sales of the relevant products extracted from the latest Board approved forecasts, consistent with the approach in prior years. A discount rate of 10.9% was used (2020: 10.9%). The valuation includes elements which are unobservable and which have a significant impact on the fair value. Accordingly, contingent consideration is classified as Level 3 fair value measurement.

The value of the adjusted contingent component using the latest Board approved forecasts and assumptions as above is $1.1m (2020: $2.9m). Settlement of this liability would be issued upon approval of the Group revenues between the Company and Sellers subsequent to year end 2022.

As a result of the changed revenue forecasts, earn out period, and discount rate from the original value assessments, the contingent consideration at 31 December 2021 was decreased to $1.1m. Sensitivity analysis was also performed, summarised as follows:

- If the sales in 2022 were reduced by $1.0m, the fair value would be reduced by approximately $0.4m
- A 1% increase in the discount rate would reduce the fair value by $12k

Since the forecasts used were a conservative base case, the computed fair value was deemed appropriate.

On 12 April 2021, 1,923,389 shares were issued in settlement of the contingent consideration for 2020 sales in excess of the threshold.

18. Financial instruments

Financial risk management objectives and policies

Itaconix principal financial liabilities comprise trade and other payables and borrowings. The primary purpose of these financial liabilities is to finance the operation. Itaconix has trade and other receivables and cash that derive directly from its operations.

The Company has limited financial liabilities as its primary purpose is to hold investments in other Group companies. The Company's receivables largely relate to funding the operations of Itaconix.

	Group		Company	
	2021	2020	**2021**	2020
	$'000	$'000	**$'000**	$'000
Financial assets				
Cash	**683**	1,448	**444**	934
Trade and other receivables	**280**	463	**17**	49
Intercompany receivable	**-**	-	**-**	-
Financial liabilities				
Trade and other payables	**(1,020)**	(1,404)	**-**	-
Note payable	**-**	(183)	**-**	-
Lease liabilities	**(494)**	(704)	**-**	-
Contingent consideration	**(1,116)**	(2,853)	**(1,116)**	(2,853)
	(1,667)	(3,233)	**(655)**	(1,870)

The Directors consider that the carrying amount for all financial assets and liabilities approximates to their fair value.

Financial risk management

The Group is exposed to market risk, which includes interest rate risk and currency risk, credit risk and liquidity risk. The senior management oversees the management of these risks and ensures that the financial risk taken is governed by appropriate policies and procedures and that financial risks are identified, measured and managed in accordance with Itaconix's policies and risk appetite.

Liquidity risk

Itaconix seeks to manage financial risk by ensuring adequate liquidity is available to meet foreseeable needs and to invest cash assets safely and profitably. Short-term flexibility is achieved by holding significant cash balances in Itaconix's main operational currencies, notably UK Sterling and US Dollar.

Credit risk

The principal credit risk for Itaconix arises from its trade receivables. In order to manage credit risk, new customers undergo credit review and customer accounts are regularly reviewed for debt ageing and collection history. As at 31 December 2021, there were no significant credit risk balances.

Credit risk from cash balances with banks and financial institutions is managed in accordance with group policy. Credit risk with respect to cash is managed by carefully selecting the institutions with which cash is deposited.

The financial assets of the Group comprise cash at banks, trade receivables and other receivables. Having reviewed the recoverability of Itaconix's financial assets since the reporting date, as well as the likelihood of future losses over the next 12 months and the lifetime of the assets, the Board does not consider it necessary to recognise any credit losses.

Interest rate risk

The Group finances its operations principally from equity funding and has no debt. Therefore the downside risk associated with changes in interest rates is minimal. No sensitivity analysis has been presented for changes in interest rates as these do not have a material impact on the loss before tax.

Currency risk

During the year, the Group received revenue in USD, EURO and GBP, whilst the majority of its cost base is in USD. These receipts are currently relatively small and tend to be used first to cover costs in the same currency before conversion to USD, and so currency risk impacting cash balances is deemed to be appropriately managed. Intercompany loans from Itaconix plc to Itaconix Corporation to fund the US operations is denominated in GBP and so is translated to USD each period end, potentially resulting in significant debits or credits to the Company's profit and loss but with no cash or other impact on the Group as the loan is eliminated on consolidation. Management notes that such foreign exchange movements are non-cash items. No forward foreign exchange contracts were entered into during the period (2020: nil). At 31 December 2021 the bank balances on hand of foreign currencies were:

Currency	**2021 '000**	2020 '000
GBP	**198**	344

The foreign currency balances are in aggregate higher than at the end of 2020, which is due to the US-based Itaconix Corporation being the main operating entity. No sensitivity analysis has been presented for changes in currency exchange rates, although management will keep the need for sensitivity analysis under regular review going forward.

Liquidity risk

The Group seeks to manage financial risk, to ensure sufficient liquidity is available to meet foreseeable needs and to invest cash assets safely and profitably. The Group's policy through the period has been to ensure continuity of funding by equity. The table below summarises the maturity profile of the Group's financial liabilities at the year-end based on contractual undiscounted payments, specifically noting that the lease liability total is determined as the undiscounted lease payments including interest payable.

At 31 December 2021:

Group	**On demand $000**	**Less than 3 months $000**	**3 to 12 months $000**	**1 to 5 years $000**	**> 5 years $000**	**Total $000**
Trade and other payables	-	**478**	**542**	-	-	**1,020**
Contingent consideration	-	-	-	**1,116**	-	**1,116**
Lease liability	-	**50**	**143**	**301**	-	**494**
	-	**528**	**685**	**1,417**	-	**2,630**

At 31 December 2020:

Group	On demand $000	Less than 3 months $000	3 to 12 months $000	1 to 5 years $000	> 5 years $000	Total $000
Trade and other payables	-	974	430	-	-	1,404
Contingent consideration	-	146	-	3,301	-	3,447
Lease liability	-	63	189	681	-	933
Note payable	-	39	93	51	-	183
	-	1,222	712	4,033	-	5,967

2021 was 0.25% to 1.00% per annum (2020: 0.25% to 1.00%).

Capital risk management

The Group manages its capital to ensure that it will be able to continue as a going concern while also maximizing the operational potential of the business. The capital structure of Itaconix consists of cash and cash equivalents and equity attributable to equity holders of the Company, comprising issued capital and reserves as disclosed in the consolidated statement of changes in equity. Itaconix is not exposed to externally imposed capital requirements.

Committed facilities

The Group has no floating rate committed borrowing facilities as at 31 December 2021 (2020: nil).

There are no material differences between the fair value of financial instruments and the amount at which they are stated in the financial statements. This is due to the fact that they are of short maturity and if payable on demand the fair value is not materially different from the carrying value.

19. Leases

The Group leases all its facilities from which it operates. The headquarters, production, and main offices are located in Stratham, NH, USA. The facility is approximately 31,000 square feet and the lease runs through to September 2024. Lease payments to September 2024 have been included in the initial recognition of the lease liability. There was another office facility in Deeside, Flintshire, UK that expires in July 2021, but which was surrendered to the landlord in September 2020. There was an exceptional income recognized from the surrender of $91k due to the onerous lease liability being released.

In applying IFRS 16, the Group used practical expedients permitted by the standard:

- reliance on previous assessments on whether leases are onerous;
- the use of hindsight in determining the lease term where the contract contains options to extend or terminate the lease.

Right-of-use asset

	Leased Building $'000
At 1 January 2020	920
Additions in year	24
Amortisation	(198)
Exchange differences	-
At 31 December 2020	746
Additions in year	-
Amortisation	(201)
Exchange differences	-
At 31 December 2021	545

Lease liability

	Leased Building $'000
At 1 January 2020	1,070
Additions in year	24
Interest expense	28
Lease payments	(327)
Lease termination	(91)
Exchange differences	-
At 31 December 2020	704
Interest expense	42
Lease payments	(252)
Exchange differences	-
At 31 December 2021	494

The above table also provides an evaluation of the material changes in the Group's liabilities arising from financial activities, as noted in the Group's Cashflow.

At 31 December 2021, the maturity of the lease (undiscounted) is as follows:

	Up to 3 months $'000	Between 3 months and 12 months $'000	One to two years $'000	Two to five years $'000
Leased building	62	185	247	164
Leased equipment	1	4	5	11

20. Share capital

	Group $000	Company $000
At 1 January 2020 (269,130,071 shares in issue)	3,677	3,677
Issued as a result of an exercise of options		
Nil	-	-
New share issued		
08/07/20 – 11,549,134	145	145
15/07/20 – 151,769,048	1,896	1,896
At 31 December 2020 (432,448,253 shares in issue)	5,718	5,718
Issued as a result of an exercise of options		
Nil	-	-
New share issued		
12/04/21 – 1,923,389	26	26
08/06/21 – 9,091,115	129	129
At 31 December 2021 (443,462,757 shares in issue)	5,873	5,873

Itaconix plc (previously Revolymer plc) was incorporated on 10 April 2012.

On 8 July 2020, the Company issued 11,549,134 ordinary shares with a nominal value of 1p per share for 1.1p per share. The consideration was received in cash.

On 15 July 2020, the Company issued 151,769,048 ordinary shares with a nominal value of 1p per share for 1.1p per share. The consideration was received in cash.

On 8 April 2021, the Company issued 1,923,389 ordinary shares with a nominal value of 1p per share for 5.52p per share. Shares were issued in settlement of the 2020 contingent consideration liability.

On 8 June 2021, the Company issued 9,091,115 ordinary shares with a nominal value of 1p per share for 12.5p per share. The consideration was received in cash.

21. Notes to the statements of cash flow

	Group		Company	
	2021	2020	**2021**	2020
	$'000	$'000	**$'000**	$'000
Loss before tax	**(448)**	(1,639)	**(448)**	(1,661)
Depreciation of property, plant and equipment	**167**	200	-	-
Amortisation of right-of-use asset	**201**	198	-	-
Disposal of equipment	**(20)**	(20)	-	-
Impairment of Group indebtedness	-	-	**1,927**	1,224
Reversal of interest income	-	-	**(577)**	(517)
Revaluation of deferred consideration	**(1,591)**	412	**(1,591)**	412
Exceptional income on reorganization	-	(91)	**-**	-
Loss on foreign exchange	**17**	8	**(4)**	92
Share based payments charge	**51**	18	**51**	18
Taxation	**(7)**	(7)	-	-
Operating cash flows before movements in working capital	**(1,630)**	(921)	**(65)**	85
Increase in inventories	**(8)**	(857)	-	-
Decrease / (increase) in receivables	**183**	(132)	**31**	(13)
(Decrease) / increase in payables	**(568)**	753	**(44)**	(146)
Net cash outflow from continuing operating activities	**(2,023)**	(1,157)	**(78)**	(74)

22. Share based payments

An expense is recognised for share based payments based on the fair value of the awards at the date of grant, the estimated number of shares that will vest and the vesting period of each award.

During the year to 31 December 2021 no share options (2020: nil) were granted under the Itaconix LTIP scheme as either approved options (under the HMRC approved EMI scheme) or unapproved options. The management team received nil cost share options (either HMRC approved or unapproved) with market facing performance conditions required for vesting ("Management Options"). The fair value of Management Options as at the date of grant was therefore estimated using a Monte Carlo simulation model. UK employees did not receive share options under the EMI scheme (and with an exercise price of the market price as at the date of grant) ("Employee Options"). US employees did receive share options under the US Option scheme (and with an exercise price of 100% - 110% of the 3-day weighted average of the market price as at the date of grant) ("Employee Options"). Accordingly the fair value of the Employee Options was estimated as at the date of grant using a Black Scholes model. Both models took into account the terms and conditions upon which the options were granted using the following assumptions.

Grant date

	Unapproved Management Options	EMI Management Options	EMI UK Employee Options	2019 US Employee Options
2021 Option Grant				
Number of options granted	nil	nil	nil	2,100,000
Exercise price	£nil	£nil	£nil	£0.075-£0.081
Expected volatility	nil	nil	nil	224.56%
Risk free rate	nil	nil	nil	0.67%
Expected dividend yield	nil	nil	nil	0%
Expected option life	nil	nil	nil	3-4 years
2020 Option Grant				
Number of options granted	nil	nil	nil	4,900,000
Exercise price	£nil	£nil	£nil	£0.027
Expected volatility	nil	nil	nil	132.62%
Risk free rate	nil	nil	nil	0.83%
Expected dividend yield	nil	nil	nil	0%
Expected option life	nil	nil	nil	3-4 years
2017 Option Grant				
Number of options granted	2,096,282	1,582,127	834,051	nil
Exercise price	£nil	£nil	£0.235	£nil
Expected volatility	33.1%	33.1%	33.1%	nil
Risk free rate	0.4%	0.4%	0.4%	nil
Expected dividend yield	0%	0%	0%	nil
Expected option life	36 months	36 months	36 months	nil

The Employee Options have a vesting period of 36-48 months with no performance criteria. The vesting period of the Management Options is also 36 months but they only become exercisable if challenging market facing performance conditions are met; namely that 50% of the grant becomes exercisable if the weighted average ordinary share price in the 180 day period ending on 31 May 2020 of grant is £0.40. Between weighted average ordinary share prices of £0.40 and £0.55, vesting shall be pro-rata and on a straight line basis between 50% and 100%. Below £0.40 the grants are not exercisable and lapse in full.

The valuation methodology used in valuing share based payments includes the key assumptions shown above. Management have revisited and amended the assumptions in respect of expected volatility and risk free rate in the year to 31 December 2020. The charge for share based payments for the period to 31 December 2021 is accordingly $51k (31 December 2020 $18k).

NOTES TO FINANCIAL STATEMENTS
For the year ended 31 December 2021

Employee share option plans – unvested options

During the year the Company operated an employee share option plan ("the EMI plan") for the benefit of certain employees of the Company.

All options granted in the year are subject to the employee completing a specified period of service. All options lapse when the employee ceases to be employed by the Company.

The following table illustrates the number and weighted average exercise prices (WAEP) of, and movements in, unvested share options outstanding under the "EMI plan" during the year:

Unvested	**2021 Number of shares**	**WAEP**	2020 Number of shares	WAEP
Balance at beginning of year	**4,900,000**	**£0.03**	136,859	£0.25
Awarded during year	**2,100,000**	**£0.08**	4,900,000	£0.03
Lapsed during the year	**(1,650,000)**	**£0.04**	(136,859)	£0.25
Unvested options at end of year	**5,350,000**	**£0.04**	4,900,000	£0.03

Unapproved share option plan – unvested options

During the year, the Company operated a share option plan for the benefit of employees who had received grants under the EMI plan up to their personal limits.

The following table illustrates the number and weighted average exercise prices (WAEP) of, and movements in, unvested share options outstanding under the Unapproved plan during the year:

Unvested	**2021 Number of shares**	**WAEP**	2020 Number of shares	WAEP
Balance at beginning of year	**-**	**£nil**	893,941	£nil
Awarded during year	**-**	**£nil**	-	£nil
Lapsed during the year	**-**	**£nil**	(893,941)	
Unvested options at end of year	**-**	**£nil**	-	£nil

Summary of all options – vested and unvested

The following table summarises the position regarding all share options whether vested or not, including those that vested at Admission in 2012:

Vested and unvested	**2021 Number of shares**	**WAEP**	2020 Number of shares	WAEP
Balance at beginning of year	**4,900,000**	**£0.03**	1,030,800	£0.08
Awarded during the year	**2,100,000**	**£0.08**	4,900,000	£0.03
Lapsed during the year	**(1,650,000)**	**£0.04**	(1,030,800)	£0.08
Balance at end of year	**5,350,000**	**£0.04**	4,900,000	£0.03

23. Related party transactions

Transactions with key management personnel

Remuneration of key management personnel

The remuneration of the Directors and Executives, who are considered to be the key management personnel of the Company, is set out below in aggregate for each of the categories specified in IAS 24 'Related Party Disclosures'.

	2021	2020
	$'000	$'000
Salaries and other short-term employee benefits	**819**	793
Post-employment benefits	**19**	19
Directors' fees invoiced by third parties	**-**	-
Equity settled share based payment expense	**113**	13
	951	825

24. Contingent assets

There were no contingent assets in 2021 (2020 - nil).

25. Contingent liabilities

There were no contingent assets in 2021 (2020 - nil).

26. Post Balance Sheet Event

22 April 2022, the Company issued 6,666,668 new ordinary shares via direct subscription for $0.4m of funding to support general growth working capital, predominately to strengthen finished goods inventories held in the EU to assure reliable and ready delivery times to EU customers.

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