

Stock Data

Share Price:	38.11p
Market Cap:	£122.89m
Shares in issue:	322.45m
52-week high/low:	60.49p/16.05p

Company Profile

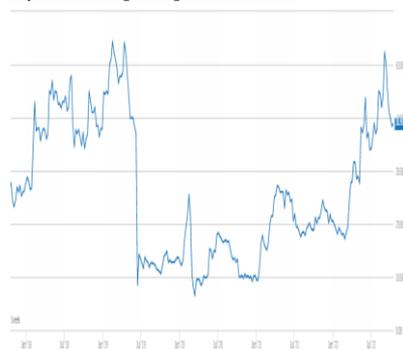
Sector:	Technology
Ticker:	NANO
Exchange:	LSE

Activities

Nanoco Group plc ('Nanoco', 'NANO', 'the Group') harnesses the power of nano-materials. These are materials with dimensions typically in the range 1 - 100 nm. Nano-materials have a range of useful properties, including optical and electronic. Nanoco is listed on the Main Market of the London Stock Exchange.

www.nanocotechnologies.com/

5-year share price performance



Source: [LSE](https://www.lse.com)

Past performance is not an indication of future performance.

Turner Pope contact details

Tel: 0203 657 0050
Email: info@turnerpope.com
Web: www.turnerpope.com

Andrew Thacker
Corporate Broking & Sales

Barry Gibb
Research Analyst

TPI acts as joint broker to Nanoco Group plc.

Attention is drawn to the disclaimers and risk warnings at the end of this document.

Retail clients (as defined by the rules of the FCA) must not rely on this document.

Nanoco Group plc

Nanoco has released its Preliminary Results for the year ended 31 July 2022. Detailing both revenues and Adj. LBITDA ahead of earlier expectations, the Board highlights not only strengthened belief and confidence in its ongoing litigation against Samsung, but also the long-term commercial visibility being generated through both existing development works and increasing customer engagements. Significant news flow is expected in the near term; this includes both visibility of commercial production orders for sensing materials in conjunction with preparations for production readiness by the end of H1 FY2022/23, while also anticipating full vindication of the Group's robust IP defence when the trial takes place in Texas on a similar timeframe. Although the Group has never publicly estimated the potential value of an award from successful litigation, TPI research of 6 June 2022 suggested this could be in the range of US\$200m to US\$300m for Samsung's historical US infringement alone. Should its actions be considered specifically wilful, however, the final figure could be a multiple of this. In recognition of this, and the fact that Nanoco's cadmium-free quantum dot ('CFQD') technologies remain central to Samsung's continued dominance of the international market for premium displays, the South Korean giant may become inclined to seek an early out-of-court global settlement. This offers transformational potential for both the Group's prospects and shareholder value as it strives to build its technologies into a self-sustaining organic business.

FY2021/22 financial highlights, cash runway remains out to CY2025

Financial highlights from the Group's Preliminary Results to 31 July 2022 included full year revenues ahead of expectations set by the management back in January, successful cost cutting and a significantly improved cash runway, while now also anticipating strong revenue growth for the current period:

- Full year 2021/22 revenue increased 19% to £2.5m (FY2020/21: £2.1m) on improved activity levels.
- Reduced Adjusted LBITDA of £2.1m (FY21: £2.8m Adj. LBITDA) for the period, benefiting from revenue growth and cost savings.
- Operations successfully transferred from Manchester to Runcorn delivering £1.0 million annualised savings (net £0.7 million) from CY2023.
- Equity fundraise completed on 8 June 2022 now provides an extended cash runway out to CY2025, beyond the Board's expected breakeven point.
- Cash of £6.8 million at year end with average net monthly burn rate now reduced to under £0.2m.
- The Board expects to deliver at least 20% revenue growth in FY2022/23.

Important milestones delivered in second half of FY2021/22

Nanoco delivered two important milestones in the second half of FY 2021/22. It won all five patents and all 47 claims that were contested by Samsung at the US Patent Trial and Appeal Board ('PTAB'). It also delivered a significant contract extension with its European electronics customer that covers the work required to scale up and validate its nanomaterials for production readiness. As such, management is now moving forward with confidence to the forthcoming trial in the IP litigation and to further validation of its products during H1 FY2022/23, in anticipation of visibility of production orders shortly thereafter.

Update on Nanoco's ongoing IP litigation against Samsung

Near-term share price sentiment is likely to remain primarily influenced by the ongoing Samsung litigation and confirmation of the trial date that is expected shortly. Expectations remain high following the PTAB's 17 May 2022 confirmation that had validated all 47 claims in the five patents at issue in the lawsuit in the Eastern District of Texas. His Honour, Judge Gilstrap, on 7 June 2022 lifted the stay on the trial to be held in Texas, rejecting Samsung's request for a further delay. This firmly underpins Nanoco's unique leading-edge IP.

A pre-trial conference date was successfully concluded on 19 August 2022, since when, as is fairly routine in such circumstances, two potential trial dates have come and gone. Expected to last just one week and presently once again in the scheduling process, the Board remains confident that it will receive a firm date in the short term for which its team of witnesses, experts and advisers are standing by. With the PTAB having already settled the issue of validity, the jury will be obliged to consider questions of infringement, wilfulness and damages. The trial's outcome has potential to be transformational for both Nanoco's prospects and shareholder value. Although the Board has not cited to shareholders any value assessment with respect to potential reparations, it nevertheless appears to be ideally positioned to pursue an award for significant damages, or otherwise negotiate a global out-of-court settlement that realistically could total significantly more than the Group's current market capitalisation.

Even given the expectation that Nanoco will be successful at this trial, however, investors should still be prepared for a further, possibly reasonably extended, period of legal work and negotiation before the matter is finally settled. Samsung can be expected to appeal any such trial verdict in favour of Nanoco. It has already lodged notices that it intends to appeal all of the PTAB findings, with such appeals generally expected to be resolved over the following next twelve to eighteen months. Against this, however, Nanoco's Board notes the robustness of the PTAB opinions in dismissing Samsung's claims, therein reinforcing the validity of the IP in question.

In addition to this, the Group recently also took further steps to defend its IP in Germany, which is a major market for Samsung. Other venues for litigation are also being evaluated. Thankfully, the cost of the legal process is lower than the US and the speed of resolution tends to be faster, while, importantly, injunctions preventing the sale of infringing units are more commonly granted. Nanoco's third party funding partner continues to support all aspects of these lawsuits, including the appeals processes. Beyond this, the Board also continues to review options for litigation against other potentially infringing entities, including third parties who may be purchasing infringing display units from Samsung.

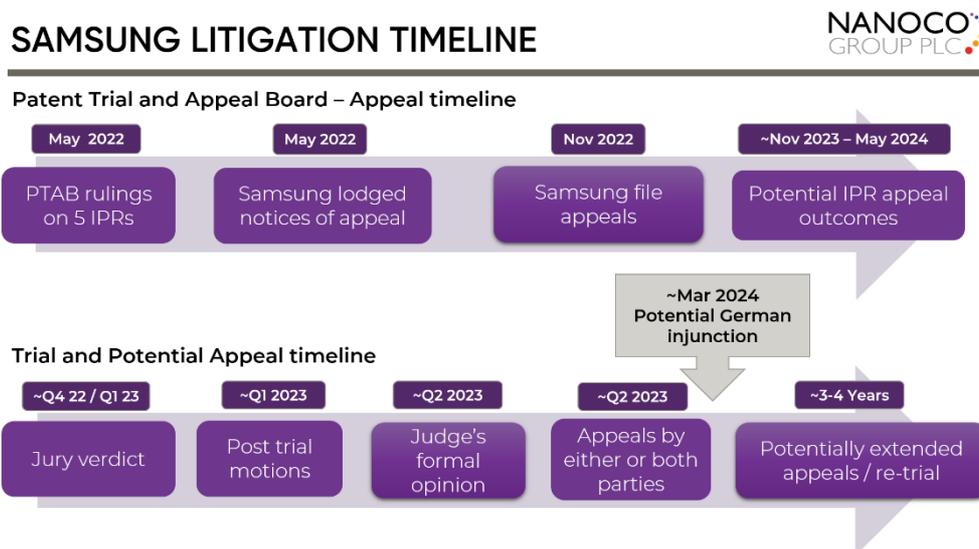
Successful litigation would formally rule on infringement, wilfulness and damages

Successful litigation would require at least one claim to survive both potential patent review appeal and trial which, assuming an out-of-court settlement is not reached beforehand, will then formally rule on infringement, wilfulness and damages. The outcome in the current US litigation alone, for example, could be based on considerations covering any or all of the following:

- US sales only – estimated at c.33% of Samsung's global QD television sales
- Historical sales only to the date of trial - anticipated future sales can have an ongoing royalty awarded by the judge post trial (including existing market, second generation TVs, other devices such as phones, tablets, etc), This could be extensive since some of the patents do not expire until 2028 or even 2035.
- Wilfulness – US courts have been seen to increase damages by up to three times should any infringement demonstrated be considered wilful by the jury, as opposed to accidental (Texas judges on average award a 1.5x multiplier).

Any compensation claim would need to encompass the global nature of the IP, comprising four patents that are due to expire between 2025–2028, along with a fifth extending out to 2035, covering the historic sales of Samsung's QD flat screen displays plus its more recently launched second-generation models (the Group estimates that Samsung's global market share has in the past been close to 90%, although this has reduced somewhat over the past three years with the entrance of new competition). In terms of unit numbers involved, for example, these have been estimated by independent analytical and consultancy firm, Omdia, that recently suggested Samsung's cumulative QLED-based sales over the past five years to end-2021 reached c.26m, with 9.43m premium units in 2021 alone.

Nanoco Group -Samsung Litigation Timeline



Achievements in FY22 strengthen confidence in potential for transformational value if successful at trial

Source: Nanoco, Preliminary Results Presentation for period ended 31 July 2022

Nanoco believes any damages it ultimately receives should reflect the value enabled by its IP. Based on *no win, no fee* litigation funding, the Board has agreed a risk reward sharing mechanism that would lead to c.50% of a 'modest' trial award being retained by the Group, rising to 70% for larger 'wins'. From April 2022, retailers in the US were offering Samsung's latest second generation QD-OLED SB95 devices for sale at between US\$2200 for the 55-inch model and US\$3000 for the 65-inch, around double the price of similar premium, but not QD based devices. Assuming that Samsung's US QD display sales totalled 25m units over the five years to end-2021, upon which it is realistic to estimate a low-end royalty payable to Nanoco in the range of US\$8.0 to US\$12.0 per display. This amounts to lost revenue in the range of US\$200 and US\$300 million for the US alone. Although royalties negotiated might have been expected to taper with rising volumes, Nanoco's annual take might nevertheless remain on a rising trend to the point of expiry of its various patents.

Samsung might be expected to indicate its willingness to negotiate a global settlement with Nanoco when its legal counsel considers there to be a high probability that the US damages claim against it will be successful. Within this, it would recognise that the European QD TV market, which is covered by the same five patents, is presently only a little smaller by value than North America; China is also an expanding opportunity which, due to its recent environmental regulations, is likely to favour non-cadmium based QD technology. Samsung would also seek an agreement that encompasses existing and/or prospective white label sales of display panels to other multinationals as part of its planning to expand their use into other product areas.

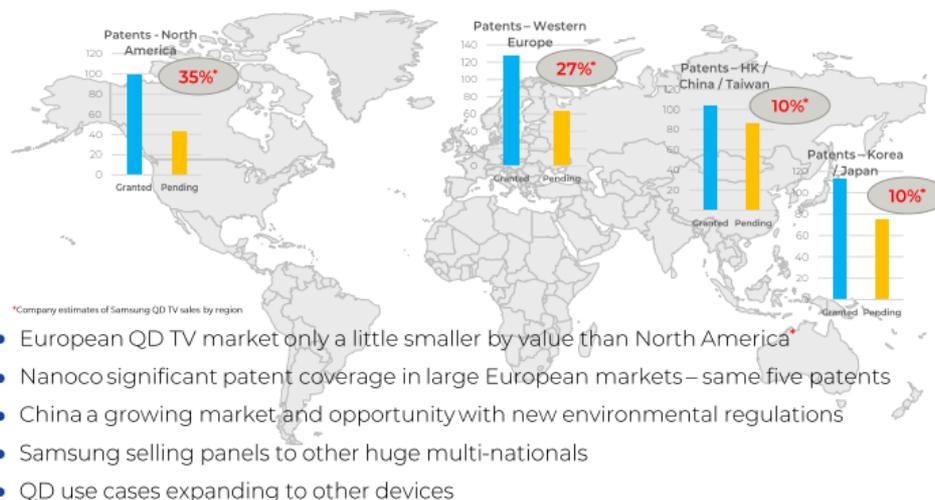
A favourable trial verdict, moreover, would enhance Nanoco's options to start further litigation in other territories covered by its IP and potentially in territories where the legal process is faster, costs would be lower and where injunctions are more commonly granted in addition to damages (in the USA injunctions are much harder to win following the Supreme Court ruling in [eBay Inc. v. MercExchange, LLC](#), 547 U.S. 388 (2006)).

With the agreed proportion of total success fee claimable by Nanoco's funder and legal counsel set to taper as the absolute award grows, the net amount prospectively received by the Group could be partially protected by existing carried forward tax losses amounting to c.£38 million. Such an award would not only permit the Group to vigorously pursue any further global infringement of its IP, but also permit it to build out the technologies and IP surrounding value enhancing nanomaterials, while investing in its development, production capacity and marketing platform in expectation of securing long-term, high volume customer demand. Beyond such needs, the Board may consider returning surplus funds to shareholders by way of a special dividend or other such distribution.

Nanoco Group – Samsung Litigation Value Opportunities

LITIGATION VALUE OPPORTUNITIES

NANOCO
GROUP PLC



Successful litigation unlocks more than just a damages award in USA

Source: Nanoco, [Interim Results presentation for period ended 31 January 2022](#)

FY2021/22 also saw Nanoco deliver on commercial, technical and operational milestone

FY2021/22 was a particularly successful year for Nanoco, having delivered or exceeded virtually all of the targets set at the start of the period, including surpassing its early revenue goal for the year while doubling the size of its opening order book. Importantly it delivered each of the challenging technical milestones set by its customers for its high performing nanomaterials, while undertaking the now almost completed consolidation of its Manchester R&D/scale up activities into its Runcorn facility with reduced headcount. These changes are expected to bring long-term operational benefits along with annualised financial savings of around £0.7 million (net) from January 2023.

Recognising the importance of being able to extend its cash runway beyond expected key litigation milestones and potential production order visibility in H1 FY2022/23, the Board embarked on an equity fund raise that was completed on 8 June 2022. Issuing the maximum 5% equity allowed under existing AGM resolutions, net proceeds of £5.4 million, taken together with a prudent 20% revenue growth expectation for FY2022/23 including a low volume use case for commercial production orders during the second half, this is expected to fund the Group beyond the point at which it expects the organic business to become self-financing. This organic business opportunity plus the ongoing litigation create opportunity for transformative changes in shareholder value over the short-to-medium term.

Electronics – Potential to deliver significant value once in commercial production

Nanoco's offering of nanomaterials for use in sensing applications has moved from a single customer/single product in early 2018 to being engaged with seven customers while working with twelve distinct materials/wavelength combinations today. Furthermore, a number of other materials are progressing from development towards final validation – the last step before commercial production orders are placed.

Having successfully delivered all development milestones to its major European electronics customer, a new full year contract running until the end of April 2023 was agreed back in June. This covers the scale up and final validation of two of the Group's materials and also adds a third novel material emanating from its R&D efforts. Given the customer's apparent commitment to commercialising infra-red sensors using Nanoco's quantum dots, management are presently working toward a state of readiness in H1 FY2022/23 in anticipation of receiving its first commercial production orders in the near term. Elsewhere highly promising, albeit smaller-scale and less advance stage, work remains ongoing with a major Asian chemical company customer. Importantly, this has the potential to match the scale of revenue generation presently being seen from the European customer.

Both the European and Asian customers participate in very large global markets wherein final customer adoption of QD sensing technology would lead to significant revenue opportunity. Nanoco has also continued to seek out new customer relationships throughout the past year with encouraging initial progress.

Full year 2021/22 revenues ended up two-and-a-half times that of the opening £1m order book. Current visibility is provided through a closing order book of c.£2m, an increasing range of R&D services being offered to a broader base of customers, and an assumed low volume use case for commercial production orders commencing in H2 FY2022/23. Based on this the Board anticipate at least 20% revenue growth for the period, although it is clear that this could be quite substantially surpassed should its initial projection for commercial production orders be too prudent. The international momentum presently behind automation and IoT applications etc. most certainly suggests the performance enhancement nanomaterials offer silicon-based sensors will become increasingly desirable and, ultimately, even indispensable. This would place a high value on both Nanoco's patent portfolio and the Group's knowhow.

Display (CFQD[®] quantum dots) – Awaiting EU legislation and a verdict from Samsung litigation

A successful verdict in the litigation with Samsung will positively affect the Group's ability to derive income from its capabilities in display, whether in production, further robust defence of its existing IP portfolio, or the future licensing of its technology.

The PTAB's recognition of the validity of Nanoco's patents must be considered one of the reasons activity levels and inbound enquiries covering display materials increased during H2 FY2021/22. Criteria formulated by the European Union (EU) to regulate the use of toxic materials in electrical and electronic devices, systems, and toys, known as the Restriction of Hazardous Substances ('RoHS') Directive (2002/95/EC which became effective 1 July 2006) along with similar pending international regulations, also played a role by encouraging manufacturers to incorporate less dangerous substances ahead of the anticipated formal legislation, in turn favouring the Group's cadmium free offering. Having retained its core capabilities to deliver display R&D services, scale-up and commercial production of material from its Runcorn facility, Nanoco is well positioned to take advantage of any broadening in the adoption of non-toxic quantum dots by global display manufacturers when the opportunity arises. With this in mind, new customer relationships have been actively sought, as a result of which a number of these have moved forward at a small scale with delivery of a modest number of material samples. The Group remains ready to license its technology to different channel partners while also retaining its own manufacturing capability.

Looking forward, Samsung will also presumably be keen to reverse its recent losses in global market share of QD TVs to other OEMs/recent sector participants, thereby necessitating its continued development and optimisation of its quantum dot-based product range as competitive pressures intensify. Altogether, this suggests significant opportunity for Nanoco to capitalise on such forward and expanding opportunities, while it also notes increasing interest in their use with LEDs for both lighting and display applications.

Significant production revenue-generating capacity retained despite cost elimination

Nanoco has reduced its installed cash cost base from over £12.0 million in FY2018/19 to around £4.0 million for FY2022/23, while retaining its core capabilities and building its revenue generating potential. It achieved this by focusing on its 'dot only' strategy that plays to its technological expertise. The centralising of its operations to Runcorn is expected to create a number of operational and team benefits, while also reducing the annualised installed cost base by around £0.7 million (net) once decommissioning and dilapidations have been completed in Manchester towards the end of CY2022.

June's oversubscribed equity issue raised net proceeds of £5.4m, which left the Group with a financial year-end cash position of £6.8m while its average net monthly burn rate has since been reduced to under £0.2m. Assuming it remains stable at this level for the current period and increments by a maximum of 10% in each of the two following financial years, the Group's cash runway would extend out to the beginning of 2H FY2024/25. Based on a highly prudent 20% increase in annual revenues over the same time, the balance sheet appears to be sufficiently strong to sustain the Group until its organic operations become self-financing. While this undoubtedly provides comfort for investors, their focus will clearly remain on both Nanoco's opportunity to commercialise its highly protected quantum dot technologies through production and licensing agreements, while also taking a measured approach to the time value of its ongoing Samsung litigation.

THIS DOCUMENT IS NOT FOR PUBLICATION, DISTRIBUTION OR TRANSMISSION INTO THE UNITED STATES OF AMERICA, JAPAN, CANADA OR AUSTRALIA.

Conflicts

This is a non-independent marketing communication under the rules of the Financial Conduct Authority (“FCA”). The analyst who has prepared this report is aware that Turner Pope Investments (TPI) Limited (“TPI”) has a relationship with the company covered in this report. Accordingly, the report has not been prepared in accordance with legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing by TPI or its clients ahead of the dissemination of investment research.

TPI manages its conflicts in accordance with its conflict management policy. For example, TPI may provide services (including corporate finance advice) where the flow of information is restricted by a Chinese wall. Accordingly, information may be available to TPI that is not reflected in this document. TPI may have acted upon or used research recommendations before they have been published.

Risk Warnings

Retail clients (as defined by the rules of the FCA) must not rely on this document.

Any opinions expressed in this document are those of TPI’s research analyst. Any forecast or valuation given in this document is the theoretical result of a study of a range of possible outcomes and is not a forecast of a likely outcome or share price.

The value of securities, particularly those of smaller companies, can fall as well as rise and may be subject to large and sudden swings. In addition, the level of marketability of smaller company securities may result in significant trading spreads and sometimes may lead to difficulties in opening and/or closing positions. Past performance is not necessarily a guide to future performance and forecasts are not a reliable indicator of future results.

AIM is a market designed primarily for emerging or smaller companies and the rules of this market are less demanding than those of the Official List of the UK Listing Authority; consequently, AIM investments may not be suitable for some investors. Liquidity may be lower and hence some investments may be harder to realise.

Specific disclaimers

TPI acts as joint broker to Nanoco Group plc (‘Nanoco’) which is listed on the Premium Segment the London Stock Exchange’s Main Market (‘LSE’). TPI’s private and institutional clients may hold, subscribe for or buy or sell Nanoco’s securities.

Opinions and estimates in this document are entirely those of TPI as part of its internal research activity. TPI has no authority whatsoever to make any representation or warranty on behalf of Nanoco.

General disclaimers

This document, which presents the views of TPI's research analyst, cannot be regarded as "investment research" in accordance with the FCA definition. The contents are based upon sources of information believed to be reliable but no warranty or representation, express or implied, is given as to their accuracy or completeness. Any opinion reflects TPI's judgement at the date of publication and neither TPI nor any of its directors or employees accepts any responsibility in respect of the information or recommendations contained herein which, moreover, are subject to change without notice. Any forecast or valuation given in this document is the theoretical result of a study of a range of possible outcomes and is not a forecast of a likely outcome or share price. TPI does not undertake to provide updates to any opinions or views expressed in this document. TPI accepts no liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection with this document (except in respect of wilful default and to the extent that any such liability cannot be excluded by applicable law).

The information in this document is published solely for information purposes and is not to be construed as a solicitation or an offer to buy or sell any securities or related financial instruments. The material contained in the document is general information intended for recipients who understand the risks associated with equity investment in smaller companies. It does not constitute a personal recommendation as defined by the FCA or take into account the particular investment objectives, financial situation or needs of individual investors nor provide any indication as to whether an investment, a course of action or the associated risks are suitable for the recipient.

This document is approved and issued by TPI for publication only to UK persons who are authorised persons under the Financial Services and Markets Act 2000 and to professional clients, as defined by Directive 2004/39/EC as set out in the rules of the Financial Conduct Authority. This document may not be published, distributed or transmitted to persons in the United States of America, Japan, Canada or Australia. This document may not be copied or reproduced or re-distributed to any other person or organisation, in whole or in part, without TPI's prior written consent.

Copyright © 2022 Turner Pope Investments (TPI) Limited, all rights reserved.