

A Report on the Economics and Financial Management of Tidal, a subsidiary of Aspiro AB

ROCKALL, CHARLES

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1 A Brief History of Tidal

Tidal music was launched in 2014 to provide a new alternative music streaming service to compete with the likes of Spotify, Google Play Music and Deezer. The platform hosts songs, podcasts, music videos as well as exclusive content such as behind the scenes footage and artist interviews.

Tidal was launched and is owned by Aspiro, a Norwegian technology company based in Oslo. Aspiro was founded in 1998 by Jörgen Adolfsson, Christer Månsson, and Klas Hallqvist who all worked in the telecommunications sector. The original basis of the company was to take advantage of the massive change in mobile communications that they realised would be caused by changes to the Wireless Application Protocol (WAP) in 1999 and was the first time a web protocol used for accessing information via a mobile network became widely accessible. The company was listed on the Swedish stock exchange in 2000 and began trading on the main stock market in 2001. Whilst Aspiro has existed for over 20 years, their first music streaming service WiMP launched in 2010 beginning in Norway. By 2012 WiMP had launched in Norway, Sweden, Denmark and Germany, and had additionally launched a free-to-access beta version of the platform in Poland and a separate version of the platform launched in Holland under the brand Ziggo Muziek, in partnership with Internet Service Provider Ziggo. At this stage, WiMP reported it had over 350,000 paying customers and was looking to continue to expand into new territories.

On 28th October 2014, the service was launched in the US, UK and Canada under the new name, Tidal. This was the start of an aggressive push into new markets with the unique selling points of 'lossless' audio, HD videos and exclusive extra content designed to appeal to real music fans and audiophiles. The launch was aided by integration across several major operating systems including android and iOS, as well as being made available to access via Sonos and other audio hardware companies. Tidal went on to launch in Ireland, Finland, the Netherlands, Belgium and Luxembourg in January of 2015.

In March 2015, Aspiro was purchased by Project Panther Bidco Ltd. (famously owned by billionaire rapper Jay Z), for \$56 million. After the takeover, WiMP was integrated into the Tidal platform and the streaming service was relaunched with a large publicity campaign

centred around Tidal being an artist-owned streaming platform with higher artist royalties, high quality audio and a great user experience. A major press conference featuring an appearance from 16 major artists including Jay Z, Beyoncé, Daft Punk, Madonna and others titled #TIDALforALL formed the centre piece of the re-launch.

Tidal initially launched with one subscription option, but had to introduce additional cheaper subscription options in 2015 to compete with the low prices of its competitors.

Tidal also revealed in an unexpected move that it would begin selling digital downloads and physical CDs in addition to subscription plans. In 2017, Tidal entered into several commercial partnerships, the most significant being a partnership with Sprint Corp. for 33% of the company and a \$200m investment. This partnership mostly affects Tidal's biggest market, the US and aims to expand the operational footprint. In 2019, Tidal remains mostly focussed in the US and UK markets, as major entrants into the market with greater global reach have reduced Tidal's overall market share, and Tidal continues to find ways to improve its offerings and increase its appeal to a larger consumer base.

2 Economics

2.1 Products and Customer Base

Tidal offers itself as a platform for users to consume content, with users being able to subscribe to the service to gain access to the content. Tidal is selling subscriptions, but its real product and the value of the subscription is the content, where different subscription options offer different levels of access.

Beginning with just one subscription option at launch, the service now offers several choices to customers. The primary difference between subscription types is the level of audio quality available to stream or download.

All subscriptions include access to the following:

- Access to the Tidal platform – accessible via multiple devices per account
- Music Catalogue – unlimited access to the entire library of Tidal’s licensed music, currently 60m tracks (2019)
- Standard audio quality – two levels of audio quality that can be set by the user for both streaming and downloads
- Music Videos – unlimited access to Tidal’s video collection, currently 250,000 videos (2019)
- Downloads – songs can be downloaded for offline playback
- Tidal X – a platform for artists to engage with users featuring live concert streams, meet-and-greets, events and concert tickets
- Tidal Exclusives – Content exclusive to the Tidal platform including tracks, albums and video

The ‘HiFi’ subscription additionally includes:

- High quality audio – two additional higher levels of audio quality, from lossless files

Discount subscriptions are offered to students, families and military personnel as detailed in **2.3.**

The majority of the service is focussed on music and associated media such as music videos and editorial pieces. Some of this content is produced within the company including editorials, curated playlists and exclusive releases in partnership with artists but the majority of it is produced directly by artists and their collaborators without Tidal’s involvement. This content is then obtained by licensing it from record labels, production companies, and other owners of the rights to songs, videos, or other content.

A significant value must be placed on the design, usability, and features of the user interface. This is the basis of the company's role in connecting the consumer with the producer. The experience of using the service is as much a product for Tidal as the content, and with a crowded market it is vital in ensuring the user experience is better than that of competitors, especially considering the higher price points as discussed in **2.3**.

The customer base Tidal aimed to appeal to at its launch was the proportion of global music consumers that are dedicated music fans and audiophiles. Consumers that are more than happy to shell out the extra money for greater audio quality, and a great user experience in addition to supporting artists through higher royalty payments versus other streaming platforms. This target customer base did not demonstrate enough appetite for the product initially, and Tidal released new pricing and subscription options to appeal to a wider audience.

2.2 Major Competitors

Though once the beginning of a revolution in music distribution, the music streaming market has become very crowded in just a few years of development. Beginning with small start-up technology companies that have built their brand around streaming from the ground up, major companies who have previously held large roles in digital and physical music distribution have now caught up to the trend and are injecting large amounts cash into streaming platforms of their own, with the advantages of cash flow, brand recognition, a built in customer base, and integration with other products and services that they offer which grassroots companies do not have. In order to keep its head above water, Tidal has been constantly jostling with these competitors for market share, attempting to offer a unique service whilst staying competitive enough on price to stay in the market at all.

2.2.1 Spotify

Spotify is arguably Tidal's biggest competitor, with the largest share of the market at 36%. It has been around since the advent of music streaming in 2008, one year earlier than Aspiro's first streaming service WiMP. It is more centred around the music, and the audio than Tidal,

and operates a different pricing strategy with the majority of its overall users paying nothing for the service and advertising covering the cost of royalties and licensing. In order to maintain the balance between the free and premium services, new features and also exclusions of those features are constantly developed based on data and customer feedback. This strategy has been advantageous in growing its user base, with a large number of users able to sample the service before committing to a subscription, and the more the service is used for free the more likely that user will remain on the platform and eventually purchase a subscription to access the premium features. In 2018, Spotify reported it had 191m users with 87m paying for a premium subscription. This means that 45.5% of its users are paying directly for the service, compared to Tidal's 100%, discounting free trial users.

2.2.2 Apple Music

Apple Music is also a major competitor, but is a much more diversified company and may have different market priorities than a brand like Spotify. Despite being slightly late to the streaming market it had the major advantage of a strong brand and a pre-existing customer base, with an already established music software dominance in the form of iTunes. This service was inexorably linked to its hardware products, and plays a significant role in client retention. Apple Music became the second most popular streaming service almost overnight as iTunes customers and Apple hardware owners were offered free trials and market leading pricing directly via their devices to sign up. Eventually iTunes was discontinued as it was seen as redundant in the streaming era. Apple Music dwarfs Tidal in terms of subscribers, but is much more similar to Tidal than Spotify in that it includes exclusive content and video content, with significant investment acquiring celebrity creators to produce content for the service. Apple Music does not offer a high quality audio option, or the same exclusive content as Tidal.

2.2.3 Amazon Music

Amazon is an online retail giant that has the potential to dwarf its competitors in every new field it enters. Known for its extensive delivery network, it also offers a variety of entertainment services. The standard subscription to Amazon Music is £9.99pm, however if a customer already has a popular 'Prime' membership, it costs just an additional £7.99pm.

Amazon also operates Amazon Web Services (AWS), where one third of all internet users access Amazon's servers daily. It's competitor in the video streaming market, Netflix, uses AWS to power its website and is responsible for 15% of the total global internet traffic. Amazon comes in third with just 3.9%, however is able to capitalise on both its own service and its competitors by running their servers. This ability to cross pollinate its services to maximise its revenue and invest enormous sums in new projects and research is unmatched, presenting a long term threat to Tidal. Amazon has also undercut Tidal's main selling point by offering the same HiFi quality subscription for £14.99pm and only £12.99pm for 'Prime' users, as well as student discounts. This presents a very significant short term threat to Tidal, and may have to rethink its current strategy to maintain its user base.

2.3 Pricing Strategy

At launch in 2014, there was only one subscription option available. It cost £19.99/\$19.99, and included all initially available features including high-resolution audio. This price point is double the current standard subscription of other services. Despite offering the additional benefits of higher audio quality and the promise of higher royalty payments, Tidal eventually made the decision in 2015 to offer an additional lower priced option in order to compete for market share with companies like Spotify, and attempt to absorb some users who are not willing to splash out on the more costly subscription.

In 2019, Tidal operates two main price categories; 'HiFi' and 'Premium'. These categories are further divided into 4 cost levels with standard, student, family, and military plans available. There are also several different trial options available including short free trials and longer trials included in partner products and services. There is a total of eight different paid subscription options. These options are presented in Table 1 below.

Table 1 : Subscription Pricing

Subscription Type	Premium	HiFi
Standard	£9.99/\$9.99	£19.99/\$19.99
Family	£14.99/\$14.99	£29.99/\$29.99
Student	£4.99/\$4.99	£9.99/\$9.99
Military	£5.99/\$5.99	£11.99/\$11.99

2.3.1 Premium

The standard 'Premium' price point is £9.99/\$9.99 per month, and is aligned with the monthly cost of most other major streaming services' standard subscription. This subscription includes all of the standard features as mentioned in 2.1., and standard quality audio. The audio files are streamed at either 320 kbit/s (High) or 96 kbit/s (Normal) depending on the available bandwidth and internet connection speed. The audio quality can be controlled by the user in the app settings for both song download quality, and streaming quality.

2.3.2 HiFi

A standard 'HiFi' subscription is more expensive than 'Premium' at a cost of £19.99/\$19.99 per month. Users receive the same standard benefits and features as a 'Premium' subscription, with the addition of high-resolution audio. With high-resolution audio, the audio files being streamed are lossless and stream at either 16bit / 44.1kHz (HiFi/CD quality) or 24bit / 96kHz (Master). The audio quality can still be controlled by the user however these files are much larger than the files accessible through a 'Premium' subscription

2.3.3 Student, Family and Military Discounts

In June 2015 a discounted student subscription was announced for both the Premium and HiFi services. This was shortly followed by the announcement of family and military plans. The student discount was 50% off the original price, and is comparable to all other competitor's student pricing. The family plan permits up to six separate accounts for the cost of £14.99, and is also comparable. The military discount is 40% off the standard cost, and is only available in the US.

These discounted options were introduced at around the same time Apple was entering the streaming market with the launch of its own platform Apple Music, which was offering a family plan with up to six separate accounts for only £14.99pm. This equates to £2.50pm per person for full access to the service. This pricing massively undercut the equivalent cost of six 'Premium' Tidal subscriptions, despite this being the lower cost option for Tidal

subscribers. Spotify also offered family plans at this time, but at a cost of £14.99 or £29.99 for two or five accounts. Spotify reacted to this price shift from Apple by matching its offer of six accounts for £14.99 whereas Tidal initially released their family plans in the form of an add on to an existing subscription. For a 'Premium' subscription, each additional user would cost £4.99 extra up to 4 additional users. With pricing for a family 'HiFi' plan even more expensive with each additional user costing £9.99, this could result in a monthly bill of up to £60pm nearly 300% more than an Apple Music or Spotify family subscription, and you would still only get five accounts and not six.

This strategy was quickly dropped in favour of price matching Tidal's biggest competitors in an increasingly crowded market. Losing market share can be fatal to a streaming business due to the high fixed cost of licensing extensive music libraries in 54 territories, with Tidal's royalty payments as much as three times those of rivals. This cost, in addition to standard overheads, must be spread across a critical mass of users with a minimum mean monthly spend in order to maintain a continuous positive revenue stream. This user base can be maintained and grown through marketing and trial subscriptions.

2.3.4 Free Trials and Bundles

Tidal offers several options for trialling its service. Trials allow potential new customers to sample the product without a large financial commitment, encouraging customers to shop around and choose the service that meets their needs and is best value for their money. Each company hopes to be able to cement their user base by meeting more of a customer's criteria than their competitors. With higher pricing, and a more limited library than a company like Spotify with its appealing free service, Tidal relies on delivering a higher quality experience that presents equal or better value for money than a company like Spotify. The pricing strategy reflects what the company feels is the premium experience it offers. This is reflected in the marketing with the cheapest subscription option branded 'Premium'.

Accessible to any new customer a one month trial of either a 'Premium' or 'HiFi' subscription is available at no upfront cost. The user must sign up to a subscription which will automatically charge for the following month if it isn't cancelled. By using this strategy additional income and a small amount of users is generated from customers who sign up to a

trial and forget to cancel before the deadline, but the main purpose of the trial is to let the product sell itself to potential new users. This is why Tidal relies heavily on maintaining the premium experience.

Additional trial periods have been offered in partnership with third party companies, usually that offer a product or service that relates to Tidal's brand such as technology companies, communications companies and high fidelity audio hardware brands. These periods range from three months to a year or more. The length of the trial is determined based on the goals and negotiated terms of the partnership. Trials bundled with other products is advantageous to both companies for marketing and expansion into customer bases that may previously have been uninterested or unattainable. In Tidal's case their partnerships with HiFi speaker brands particularly provide an opportunity to demonstrate their best feature, at the higher price point, to a new HiFi owner and ideal new customer.

In a first for Tidal, subscriptions were bundled as a part of Sprint's 'Unlimited Plus' offering as part of the partnership agreement. The partnership with Sprint opened up access to a vast customer network that had developed via its communications business, and although there was no direct income stream from users to Tidal the extensive reach and investment of the partner company.

2.4 Market Characteristics

Since the beginning of human civilisation music has played a central role in the human experience, and as society has developed the nature of music has developed alongside it. With the advent of recorded music via first analogue and now digital technology, its value and importance to society has also shifted. Where music has always played a community role as both entertainment and important cultural identification it has now become a commodity to be bought and sold as a product. This creates a market where the product is intrinsically tied to the consumer, where the consumer will purchase and enjoy a song in part because the consumer can connect or relate to the song. This in turn results in many music industry investments being 'evergreen', meaning that in many cases a song catalogue will continue to generate value for several generations because the customer, and indirectly society, is emotionally connected to the songs.

As technology continues to develop and the price of hardware capable of streaming music tumbles the demand for digital music services is soaring. The number of worldwide streaming platform users is increasing by 6.1% year on year, and expected to reach 1.27 billion paying subscribers by 2024. The current market penetration rate is 13.9% and by 2024 expects 16.5% of global population to be paying for a streaming service. Whilst the market may appear crowded on the surface, there is plenty of both appetite and room for expansion.

The streaming market remains a relatively new one, with the oldest surviving services having existed for only about a decade. This means there is still a lot of innovation and fast paced competition to stay ahead of the trend, and this volatile nature of jostling for the lion's share of an expanding and potentially hugely lucrative and evergreen market can result in young companies disappearing as fast as they appeared. The rapid progression of digital technology and its abilities is the fuel to the fire, and companies that fail to keep up are bought up or squeezed out by the bigger players.

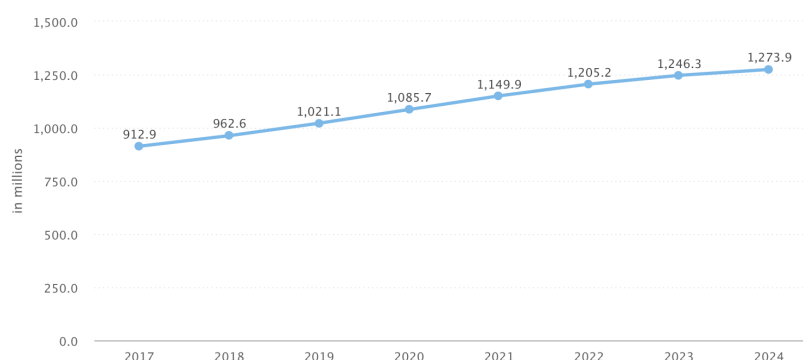


Figure 1: Worldwide Annual Paid Streaming Subscription Users (Statista, 2019)

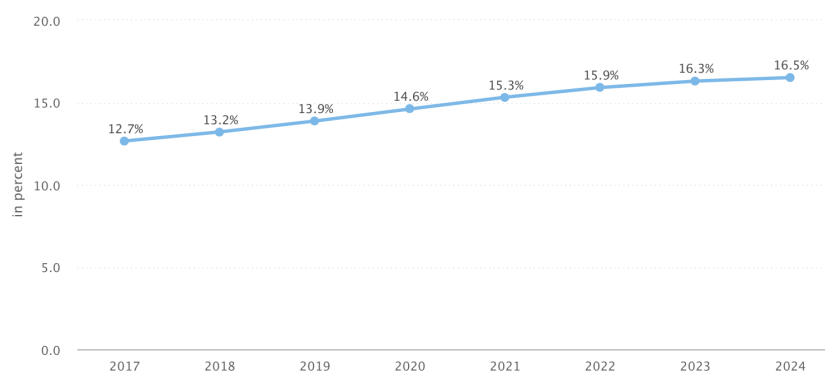


Figure 2: Worldwide Music Streaming Market Penetration (Statista, 2019)

2.5 Macro-Economic Considerations

There remain large global territories that are potential new markets for streaming companies as previously offline communities are equipped with mobile technology gain access to digital services. Expansion into these territories is affected by socio-political and economic relations between countries, however with the high global demand for access to content and digital services, many barriers to expansion are being reduced or removed through diplomatic trade relations.

There is also a potential threat to the streaming market from developing new technologies which may make streaming redundant in the same way that CDs took over from Vinyl, and MP3s took over from CDs streaming has decimated most other forms of music consumption in only a few years of its existence. It is possible that a technological revolution of the same kind is imminent. On the other hand, the rapid switch to streaming has encouraged a new growth in physical music sales with vinyl in particular seeing a comeback. Despite being an older technology, it holds a great nostalgic value as well as offering the high quality audio and a physical realisation of music that retains value, and that customers love. This presents a threat to a company like Tidal that relies on the higher quality at a higher price, and consumers who value that quality may switch back to physical consumption.

Piracy was a major concern at the start of the streaming wars, and low cost streaming has successfully drawn back music consumers to the paid market. As companies like Tidal compete with such a large number of competitors, all with different content and prices, consumers may be driven back to piracy where they can access most of the content at no cost to them, instead of paying for several different subscriptions to meet their requirements.

3 Finance Review

3.1 Short and Long Term Financing

As Tidal is a subsidiary of Aspiro, which itself is a subsidiary of Project Panther Bidco, the financial documents relevant to this report are published by the parent company, Project Panther Bidco. The group's principal activity is the sale of Tidal subscription services as stated in the document. The latest published financial data for refers to the year ending 31st December 2017 and contains the previous year's data. This data will be used for financial analysis, and is published in USD. The full data set can be found in the appendix of this report.

The major short term financing for Tidal is in the form of revenue generated from subscription sales, accounting for the majority of all revenue. A small amount of additional revenue is generated via sponsorship which accounts for 2.5%. The total revenue in 2017 was \$116.7m, an increase of 13% from 2016 where the total revenue was \$103.4m. The increased revenue resulted in an increased gross profit of \$34.4m for 2017 compared to \$31m in 2016.

The impact of taking on a large commercial partner in the form of Sprint has supported the increased annual revenue, and this is likely to continue to increase with the extended brand reach the partnership offers in the United States. Additional major new partnerships in 2017 included Daimler AG (Mercedes Benz), as well as with telecom partners Vodafone and Deutsche Telecom. The United States Is Tidal's biggest market and accounts for 61% of the total revenue in 2017, and is expected to increase in 2018 due to new initiatives introduced in 2017 aiming to expand both technological infrastructure and operational footprint.

Despite an increase in both revenue and gross profit, Tidal shows an operating loss in 2017 of \$40.6m. This is a reduction of \$2.7m (from 2016's loss of \$42.9m). Tidal attributes this improvement to operating efficiency and leverages in addition to the higher revenue. The increase in gross profit and reduction in operating loss is in line with company expectations, as described in the director's strategic business report.

Looking at the balance sheet provides a greater insight into the finances of a company. Company assets are resources held by the company that hold a future benefit, and are controlled exclusively by the company. Company liabilities are debts owed by the company to creditors, or losses attributed to financial management and depreciation of goods.

3.2 Major Financing and Investment Activities

Tidal was originally been a service offered by Aspiro, a listed company. When Aspiro was purchased by Project Panther Bidco and Tidal relaunched, it had a new company finance structure, with ownership shared amongst a large number of artist shareholders. The purchase of the company for \$56m resulted in a new marketing campaign, presenting the service as owned by artists. This means that the company is supported by finance from shareholder owners, and not external funding sources as had previously been the case with Aspiro.

In 2017, Tidal engaged in a partnership with Sprint Corporation in the US. This partnership centred around commercial activities to be undertaken by both parties, and in exchange Sprint acquired 33% of the company for \$200m. This selling of equity allowed Tidal to use the additional capital to further its business ambitions through investment and purchasing power, and to use the commercial benefits of Sprint's customer base to establish a stronger foothold in the market without releasing too much control of the company.

3.3 Alternative Financing Options

Many different financing options are available to a company such as Tidal when sourcing additional capital. Capital can of course be generated through retained profit, but considering Tidal is currently operating at a loss of over \$40m it is unlikely to be a realistic finance option for at least a few more years.

A potentially valuable source of additional financing is directly from the owners of Tidal. Due to the unique nature of Tidal's artist ownership, there is a potential for large cash injections directly out of the owner's pockets. As the nature of the business is partly focussed on increasing the revenue for artists across all music streaming services, it would be plausible for an artist to contribute additional capital for no additional share in the company on the basis that the investment will be returned via increased royalty payments for their catalogues. This is not a direct guarantee of repayment, and as there are so many owners it is unlikely any one of them would invest without an agreement for all owners to invest equally, or comparative to their current stake in the business as all owners bear the risk if the business goes bust.

Loans and financing are also a realistic option, and are available in the short, medium and long terms with interest payments based on the length of the loan as well as the potential risk of the investment. Short term loans usually make funds available for up to a year and are mostly used for expenses such as paying wages. When borrowed funds are no longer required, overdrafts can be repaid quickly and easily. Short term financing can also be applied in the form of trade credit where an arrangement is created between businesses to buy goods or services on account without making an immediate payment. Trade credit agreements operate in the same way as a short term loan but without the interest cost charged by a lender. Medium term loans are excellent for working capital and can extend up to around five years, with either fixed or variable interest rates. Medium term financing can also be an agreement between two parties in the form of leasing, where one party obtains the use of an asset for a period but legal ownership remains with the second party. Tidal may use an agreement like this for leasing servers or office space, without transferring ownership and the associated cost. Long term financing involves loans of ten years or more with variable interest rates. This type of financing is unlikely to be a preferred option for Tidal as it is not yet profitable and owners may be wary of adding a large loan to the list of liabilities where interest payments might eat away at their potential dividends. The lender also expects to receive the full amount with interest, which the owners could be liable for should the company collapse.

Selling equity is a financing option used by many companies to raise capital. A company divides its capital into units of equal value called shares, which can then be sold. Through the acquisition of shares an investor becomes an owner of the company. One of the initial major selling points of the brand to the artists and rights owners is that the company is owned solely by artists, and is not controlled by external interests. Whilst the majority share of the company remains artist owned, the 2017 partnership with Sprint offered up 33% of the company for \$200m, valuing the company at \$600m. This partnership raised both capital funds as well as access to a huge new consumer base. Despite reneging on the original 100% owned by artists promise it is of great benefit to Tidal and it is likely that artists and rights owners would support such a move if it allowed Tidal to continue growing and operating. Tidal could also issue shares on a public market if it decided to list, but this would release a large amount of control to external shareholders and would go against the position of Tidal owners.

4 Bibliography

- Öhman, J.-E., 2000. *Born Mobile*, s.l.: s.n.
- Amazon , 2019. *Amazon*. [Online]
Available at: <https://www.amazon.co.uk › prime>
[Accessed 2019].
- AMT Laboratory, 2019. *Arts Management & Technology Laboratory*. [Online]
Available at: <https://amt-lab.org/blog/2019/9/a-competitive-analysis-of-the-music-streaming-industry>
[Accessed 2019].
- Aspiro AB, 2019. *Tidal*. [Online]
Available at: <https://tidal.com/about>
[Accessed 2019].
- Cision, 2012. *Cision*. [Online]
Available at: <https://news.cision.com/wimp-music/r/award-winning-music-streaming-service-wimp-opens-beta-in-poland-today,c9338731>
[Accessed 2019].
- Cision, 2012. *Cision*. [Online]
Available at: <https://news.cision.com/wimp-music/r/aspiro-s-partner-ziggo-launch-music-streaming-service-in-the-netherlands,c9289316>
[Accessed 2019].
- Flanagan, A. & Hampp, A., 2015. *Billboard*. [Online]
Available at: <https://www.billboard.com/articles/news/6509498/jay-z-tidal-launch-artist-stakeholders>
- Hays Macintire, 2018. *Director's Report and Consolidated Financial Statements For the Year Ended 31st December 2017*, London: Project Panther Bidco Limited.
- Kahn, A., 2018. *Digital Information World*. [Online]
Available at: <https://www.digitalinformationworld.com/2018/10/distribution-of-global-downstream-traffic.html>
[Accessed 2019].
- Lane, L., 2015. *Sheer ID*. [Online]
Available at: <https://www.sheerid.com/tidal-launches-student-discount/>
[Accessed 2019].
- McElhearn, K., 2016. *Mac World*. [Online]
Available at: <https://www.macworld.com/article/3020689/everything-you-need-to-know-about-digital-audio-files.html>
[Accessed 2019].
- McGregor, J., 2015. *Forbes*. [Online]
Available at: <https://www.forbes.com/sites/jaymcgregor/2015/06/08/apple-music-vs-spotify-vs-tidal-everything-you-need-to-know/#50b4b8bc415f>
[Accessed 2019].
- McIntyre, H., 2017. *Forbes*. [Online]
Available at: <https://www.forbes.com/sites/hughmcintyre/2017/08/18/which-streaming-services-have-the-best-family-plans/#1b359c5674b6>

Peoples, G., 2015. *Billboard*. [Online]
 Available at: <https://www.billboard.com/articles/business/6620343/jay-zs-tidal-now-offers-lower-prices-for-family-plans>

Popper, B., 2015. *The Verge*. [Online]
 Available at: <https://www.theverge.com/2015/6/8/8748155/spotify-compete-match-apple-pricing-family-plan>
 [Accessed 2019].

Renshaw, S., 2019. *Company Debt*. [Online]
 Available at: <https://www.companydebt.com/articles/could-you-be-held-personally-liable-for-your-business-debts/>
 [Accessed 2019].

Rivington, J., 2017. *Tech Radar*. [Online]
 Available at: <https://www.techradar.com/uk/reviews/audio-visual/hi-fi-and-audio/music/tidal-1270607/review>
 [Accessed 2019].

Rivington, J., 2017. *Tech Radar*. [Online]
 Available at: <https://www.techradar.com/uk/reviews/audio-visual/hi-fi-and-audio/music/tidal-1270607/review>
 [Accessed 2019].

Rys, D., 2016. *Billboard*. [Online]
 Available at: <https://www.billboard.com/articles/columns/hip-hop/7317826/tidal-three-million-global-subscribers-kanye-west-pablo-streams>
 [Accessed 2019].

Sharma, C. & Nakamura, Y., 2003. *Wireless Data Services: Technologies, Business Models and Global Markets*. s.l.:Press Syndicate of the University of Cambridge.

SLA Alumni, 2018. *Digital Innovation and Transformation*. [Online]
 Available at: <https://digital.hbs.edu/platform-digit/submission/tidal-how-to-lose-the-music-streaming-war/>
 [Accessed 2019].

Sparks, M., 2014. *The Telegraph*. [Online]
 Available at: <https://www.telegraph.co.uk/technology/news/11192375/Tidal-launches-lossless-music-streaming-in-UK-and-US.html>
 [Accessed 2019].

Stassen, M., 2015. *Music Week*. [Online]
 Available at: <https://www.musicweek.com/digital/read/tidal-launches-in-five-more-european-countries/060638>
 [Accessed 2019].

Statista, 2019. *Statista*. [Online]
 Available at: <https://www.statista.com/outlook/209/100/music-streaming/worldwide>
 [Accessed 2019].

Tidal, n.d. *Tidal*. [Online]
 Available at: <https://support.tidal.com/hc/en-us/articles/115003662825-Subscription-Types>
 [Accessed 2019].

Tidal, n.d. *Tidal*. [Online]
 Available at: <https://support.tidal.com/hc/en-us/articles/360002599997-What-Audio-Quality-Does-TIDAL-HiFi-Offer->
 [Accessed 2019].

Vincent, J., 2017. *The Verge*. [Online]
Available at: <https://www.theverge.com/2017/1/23/14356184/sprint-acquires-tidal-streaming-service-exclusive-content>
[Accessed 2019].

Welch, C., 2015. *The Verge*. [Online]
Available at: <https://www.theverge.com/2015/7/8/8911359/spotify-music-family-plan-announced>
[Accessed 2019].

What Hifi?, 2019. *What Hifi?*. [Online]
Available at: <https://www.whathifi.com/news/amazon-music-hd-launches-offering-cd-quality-sound-and-hi-res-audio-streaming>
[Accessed 2019].

Young, A., 2015. *Consequence of Sound*. [Online]
Available at: <https://consequenceofsound.net/2015/03/spotify-debuts-with-exclusive-releases-with-the-white-stripes-daft-punk-and-arcade-fire/>
[Accessed 2019].

5 Appendix

FOR THE YEAR ENDED 31 DECEMBER 2017

3. REVENUE	2017 \$'000	2016 \$'000
Revenue arises from the following streams:		
Sale of subscriptions	113,802	98,691
Sponsorship	2,977	4,306
Other	-	431
	<u>116,779</u>	<u>103,428</u>
	2017 \$'000	2016 \$'000
Sales by geographic area:		
United Kingdom	5,710	5,171
United States of America	71,495	60,460
Rest of world	39,574	37,797
	<u>116,779</u>	<u>103,428</u>

FOR THE YEAR ENDED 31 DECEMBER 2017

	Note	Year ended 2017 S'000	Year ended 2016 S'000
Revenue	3	116,779	103,428
Cost of Sales		(82,426)	(72,387)
GROSS PROFIT		34,353	31,041
Administrative expenses		(74,922)	(74,659)
Other operating income	4	2	2
LOSS FROM OPERATIONS	5	(40,567)	(43,616)
Finance income	9	6	-
Finance expense	9	(456)	(154)
LOSS ON ORDINARY ACTIVITIES BEFORE TAXATION		(41,017)	(43,770)
Tax on gain on ordinary activities	10	756	903
LOSS FOR THE FINANCIAL YEAR		(40,261)	(42,867)
OTHER COMPREHENSIVE INCOME:			
Currency translation difference		(1,143)	1,520
TOTAL COMPREHENSIVE LOSS		(41,404)	(41,347)
LOSS ATTRIBUTABLE TO:			
- Equity holders of the company		(39,295)	(41,752)
- Non-controlling interests		(966)	(1,115)
TOTAL COMPREHENSIVE LOSS ATTRIBUTABLE TO:			
- Equity holders of the company		(40,408)	(40,272)
- Non-controlling interests		(996)	(1,075)

All amounts relate to continuing operations.

	Note	2017 S'000	2016 S'000
NON-CURRENT ASSETS			
Goodwill and intangible assets	11	56,423	58,318
Property, plant and equipment	12	1,961	111
		<u>58,384</u>	<u>58,429</u>
CURRENT ASSETS			
Trade and other receivables	13	19,046	55,731
Current tax assets		1,034	462
Cash and cash equivalents	14	1,345	2,968
		<u>21,425</u>	<u>59,161</u>
CURRENT LIABILITIES			
Trade and other payables	15	(76,165)	(72,847)
Corporation tax liabilities		(9)	(8)
		<u>(54,749)</u>	<u>(13,694)</u>
NET CURRENT LIABILITIES			
TOTAL ASSETS LESS CURRENT LIABILITIES		<u>3,635</u>	<u>44,735</u>
NON-CURRENT LIABILITIES			
Deferred tax	16	(2,254)	(3,010)
NET ASSETS			
		<u>1,381</u>	<u>41,725</u>
EQUITY ATTRIBUTABLE TO OWNERS OF THE COMPANY			
Share capital	19	-	-
Foreign currency translation reserve		592	1,705
Other Reserves		106,435	105,375
Profit and loss account		(102,786)	(63,491)
		<u>4,241</u>	<u>43,589</u>
NON-CONTROLLING INTEREST			
		<u>(2,860)</u>	<u>(1,864)</u>
TOTAL EQUITY			
		<u>1,381</u>	<u>41,725</u>