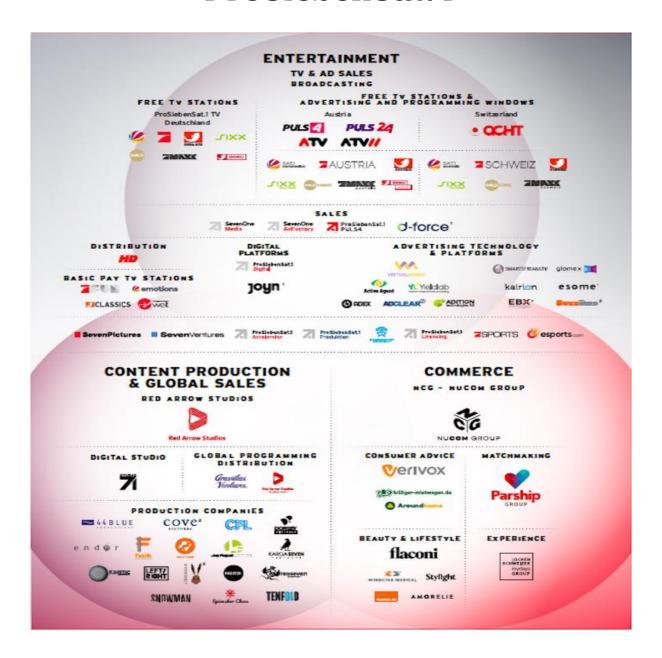
## ProSiebenSat.1



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#### **Table of Contents**

Introduction	2
A Falling deck	4
Poor M&A and Expansion strategy	4
Creation of a new cluster "Beauty & accessories"	4
Travel Cluster: a symbol of no vision	
Gaming Cluster	5
Video Streaming	
Earnings & Cash Flow Manipulation	5
Vitafy:	6
Dubious Exit Strategy: sale to related party	6
Huge Put Liabilities	6
Management Concerns	6
Declining business fundamentals	7
Loss of market	7
Loss of market share	8
Mounting financial debt	8
The effect of GDPR	8
They Way Forward	8
Strategic tie up with a Media-Services giant	10
Global expansion of NuCom portfolio	11
Affiliate Marketing Content	11
Tie ups with Social Media firms	11
Collaboration with Amazon	11
Acquisition in Data Analytics	11
Recommendation engines	
Real-time analytics	12
Control over last-mile delivery	12
Personalised Marketing Algorithms	12
Appendix	13

## Introduction

ProSiebenSat.1 Media SE is a European media and entertainment conglomerate operating in Germany, Austria and Switzerland. ProSieben is engaged in multiple businesses with multiple subsidiaries operating in various sectors including video sales, online games and e-commerce, to name a few. ProSieben operates primarily through its Ad-financed free TV business while a significant part of its operation is engaged in international TV production and distribution. In essence the company's structure can be split into three segments: Entertainment, Content Production & Global Sales (Red Arrow Studios) and Commerce (NuCom Group).

The Entertainment business consists of TV Broadcasting, Distribution, Advertising Platform Solutions (AdTech), SevenVentures and Digital Platforms (which include Maxdome and Joyn). ProSieben offers its viewers content, which is primarily local to their situation, while also given them the option to enjoy content from its European media platforms. ProSieben has invested in the growth areas of Addressable TV, AdTech and Data to increase

revenues through advertising by utilising data-driven offerings. At the same time, it has expanded its operations in Europe through various partnerships within the European Media Alliance. However, as will be described in this report, these investments and growth strategies have been made in vain and can be considered to be one of the primary reasons this company is struggling to maintain market share in entertainment advertising.

One way Prosieben has tried to overcome the challenges posed by the TV ad market, is by expanding operations in digital entertainment in an effort to appeal to its declining customer base. Seeing that majority of its viewers would prefer digital, on-demand means of entertainment, defecting to streaming platforms such as Netflix and Amazon Prime Video, ProSieben's approach was to create its own platform, Joyn, in hopes that local content could remain as relevant as it was before, only this time over a more convenient, on-demand platform and curtail the falling viewership of its network. This approach was deemed successful to some extent when monthly active users at the end of last year reached 7 million. However, when considering the fact that revenues had in fact remained relatively constant over the period, and that the overall top line had declined this year, it is clear that a more effective, alternative strategy is needed.

The second, perhaps more promising, segment of ProSieben's business model is commerce. In recent years, ProSieben has developed a reasonably successful commerce portfolio which saw 3% of total investments in 2019 alone. In 2018, one of ProSieben's subsidiaries, NuCom Group, entered a long-term partnership with growth equity investor General Atlantic. NuCom Group's portfolio focuses on four areas: consumer advice, matchmaking, experience & gift vouchers and beauty & lifestyle. The commerce business has now become ProSieben's largest source of growth and is therefore, at this point supporting and helping increase revenues from the digital side of the business.

ProSieben's stock price has declined by almost 85% since 2016 and this is mainly a result of its poor strategy to adapt to changing technologies and changing consumer behaviour. It is clear that as its core business - Entertainment - declines, ProSieben will not be able to support the expected growth in its Content development business as well as its Commerce business. In addition, its removal from the German DAX 30 index in 2018, albeit due to its significant loss of market share and market capitalisation, has only reduced investor confidence in the company since. Failed strategic moves which ProSieben has taken recently are a testament to this loss of market share. For example, ProSieben's 'media-for-equity' model, whereby it offers free advertising airtime on its channels in exchange for stakes in companies the broadcaster is investing in, can actually be considered a strategy which solely benefits the counterparty in the short term i.e. the start-up/advertiser who wishes to reduce marketing expenses by receiving advertising space instead of cash for their stock.

Since the stock price's peak in 2016, ProSieben's EBITDA margin has decreased consecutively year on year. From a peak of 28.4% at the end of 2015 to 21.1% in 2019, this sequential loss in earnings can be credited partly to its significant loss in market share. With a debt to equity ratio of 2.6 in 2019, which is above the industry average of 1.62, Prosieben can be considered a highly levered company as this debt ratio is not common for large corporations in this sector. With growing consolidation in the media and entertainment industry and international heavyweights foraying in European markets, ProSieben faces a mounting challenge with its interest costs and debt burden to fund its expansion: a challenge which is exacerbated by its continual loss of market share due to a shift in its customer base.

As briefly described above, ProSieben has been significantly underperforming over the past 4 years and this can be attributed to a number of internal and external factors. This report will investigate the weaknesses in operations and overall strategy over this period and how incoming activist investors can adopt an alternative strategy to ensure ProSieben's survival and future success.

## A Falling deck

ProSiebenSat's management turmoil and accelerating decline in the share price leaves the door open for a buyer, or activist, to demand change.

Diversification can prove to be a costly and unsuccessful strategy if the company does not have a clear vision in structuring their business, and in Prosieben's case this was mainly the case. Since Prosieben's business is heavily reliant on data from its customers, the introduction of GDPR in May 2018, will have a profound effect on ProSieben as it derives significant amount of its revenues from targeted advertisements. Moreover its strategy of expansion via acquisition has been quite catastrophic, expensive and unfocussed. To add fuel to fire, several top executives have resigned in quick succession, thereby leaving the company in a dire need of leadership. The fact that top executives at ProSieben now hold an almost negligible stake in their share capital (65000 shares in total) is a testament to the lack of faith the leadership has in the viability of operations at ProSieben.

The cracks surfacing in the company's growth story are a direct consequence of several fundamental issues facing the company, which we are going present over the course of this report.



Exhibit 1: Stock price of ProSiebenSat 1 Media SE over from April 2015-March 2020

## Poor M&A and Expansion strategy

ProSieben's has been drastically changing its investment strategy in the recent years, which has put severe dent in its M&A acumen, strained investor relations, hurt the financial health with overcommitted cash-flows and called for greater transparency from stakeholders. Here we look at some of the most controversial of its acquisitions in the recent past.

### Creation of a new cluster "Beauty & accessories"

**ProSiebensat.1 Media SE** began with the acquisition of a perfume startup, *Flaconi* and an erotic shop, *Amorelie* followed by a jewellery business, *Valmano*. In 2015, the company also acquired *Stylight*, a leading aggregation

platform for the fashion and lifestyle industry worldwide. However, these ventures have remained turned out to be largely unprofitable.

Profit of subsidiaries (EUR m)											
	Flaconi	Amorelie	Valmano	Stylight	Total						
2013	-0.70		-4.35		-5.05						
2014	1.50	-3.00	-0.74		-2.24						
2015	1.25	-5.50		-0.43	-4.68						
Total	2.05	-8.50	-5.09	-0.43	-11.99						

Exhibit 2: Profitability of ProSieben's beauty cluster

Valmano was sold by January 2017 and was loss making throughout its ownership under ProSieben while majority of the subsidiaries under the beauty cluster remained unprofitable too.

#### Travel Cluster: a symbol of no vision

The Travel cluster was ProSieben's largest cluster and was supposed to be bolstered by the EUR 235mn acquisition of Etraveli in November 2015.

In October 2016, company stated that their key strategy for the digital segment was to "grow travel into European leader". It is hard to imagine how and why ProSieben, a media company, focused on 3 German speaking countries, deviated from its core business so much so that it undertook a drive to Pan European expansion into travel. The travel cluster composed of other companies like SilverTours, Tropo, Discavo, Comvel, MyDays Group and Wetter. ProSieben sold Etraveli merely 1.5years after its acquisition while a less relevant subsidiary, Wetter ( A weather forecaster service in German region ) was retained in the portfolio. Considering ProSieben's strategic goal of developing a travel division, the decision marks a significant red flag. (exhibit 3)

#### **Gaming Cluster**

The company entered the gaming cluster in 2014 with the acquisition, for € 29 millions in cash, of the European branch of **Aeria Games**, an American mobile game developer. After losses of € 30 millions within 2 years, Aeria Games was also sold for a 33% stake in another gaming company, **Gamigo AG**. The transaction raised eyebrows as Gamigo was indeed offloaded by its previous owners Axel Springer in 2012 for a consideration of \$0.00 and highly critiqued by its auditors in 2015 for having serios issues with its accounting & internal controls. (exhibit 4)

#### **Video Streaming**

In 2016, Prosieben invested an estimated EUR 140 millions in *Maxdome*, a subscription-based video streaming service. Although celebrated as a futuristic investment decision, it has failed to achieve the desired effect since. A video streaming service, Maxdome has a rather mediocre content line without major international content, competes with industry giants at a similar price point (7.99/month) and lags against rivals in IT expertise.

### **Earnings & Cash Flow Manipulation**

ProSieben's "7Ventures" business segment generated majority of its earnings and revenue through "media for revenue" (MFR) and "media for equity" (MFE) deals, which essentially allowed it to "trade advertising in exchange for revenue or equity of its customer"..

Some of these investments included: Jawbone aka Aliphcom, Vitafy, Teatox, Koakult.

As it turned out, neither cash nor equity value was realized from these incrementally loss-making entities, many of which ProSieben itself eventually wrote off. These type of transactions appear extremely suspicious for two reasons, it allowed ProSieben to:

- 1. Record non-cash revenues for MFE transactions
- 2. Mark to market value their equity investments at what appear to be very inflated, self-determined market prices (which we suspect is happening, as a vast majority of acquisitions appear to be terminally loss making and many already in liquidation).

We will explain the model via the following examples:

### Vitafy:

An online store for fitness, wellness and health, Vitafy was acquired by ProSieben in 2015. The initial investment in Vitafy was EUR 6.8mn, however, at the time Vitafy was already making a loss. ProSieben also agreed to purchase the remainder of the stake by "multiple call options", over the next 3 years period.

Within a year, ProSieben impaired its investment in Vitafy by EUR 9mn, more than the entire cash consideration of the purchase, due to "negative business development". Despite this, it increased its holding to from 29.05% to 49.9% for EUR 7m in cash and gross media volume of EUR 20m that same year.

This begs the question – Why ProSieben's continued acquisition of a loss-making entity?

## Dubious Exit Strategy: sale to related party

On June 28<sup>th</sup> 2017, ProSieben announced the sale of "a large part of its media-for-equity portfolio" to Lexington Partners. The business was then managed by a newly formed joint venture, CrossLantic, which also constituted Lexington Partners. The most concerning aspect of this transaction was that approximately 25% ownership in CrossLantic was held by 7Ventures a Prosieben Subsidiary.

Furthermore, in ProSieben's 2017 Q3 filing, cash flows from sale of consolidated subsidiaries appeared at EUR 470 millions, which raised multiple red flags as the net cashflow from sale of Etraveli in the same period were supposedly EUR 469 millions. It seems as though ProSieben was never paid for the sale of its portfolio, an amount of EUR 35mn.

This raises the question whether Prosieben has booked unjustified capital gains under the veil of related party sale. CrossLantic is inherently not subject to the same level of financial scrutiny and transparency as ProSieben, and therefore is not under obligation to show its investment for prudent write-offs, not to mention that the entire CrossLantic's team constitutes of former high-level ProSieben officers.

#### **Huge Put Liabilities**

A general feature of ProSieben's M&A activity has been acquisition of majority stake in target company and granting the minority stakeholders with put options. Although the practical upshot for ProSieben in such deals remains the prospect of 100% business consolidation, the strategy has proved catastrophic as the associated costs are often higher than the initial benefit of a deferred payment. By 2016, ProSieben' put liabilities had crossed EUR 200 millions, with most of the deals closed at a high premium. (exhibit 5)

#### **Management Concerns**

ProSieben has experienced an unusually high turnover of its key management personnel in recent years, translating into an average tenure of only 0.9 years over the past 20 years.

In 2017 the entire finance and accounting key management at ProSieben left the organisation within a timeframe of less than 12months including its CFO, Chief Investment Officer, Head of Accounting & Tax, Head of M&A, and Head of Strategy. The fact that the mass exodus took place in the middle of tax accounting inquiries and concerns by the regulators, raises several red flags and seems to be an indicator that there is something fundamentally wrong with ProSieben's financial health. We also note that the Chief Digital Officer role becomes vacant every 2 years.

In July 2017, Ralf Schremper, ProSieben's Chief Strategy and Investment Officer from April 2015 to July 2017 and a member of the company's executive board, left ProSieben and immediately joined Oakley Capital, a private equity fund with over EUR 1.5b under management. Schremper's move was extremely troubling as ProSieben

acquired two businesses from Oakley Capital: Verivox and Parship, on terms greatly favouring Oakley Capital. For both transactions Schremper was the Chief Investment Officer and Head of M&A at ProSieben.

More recently a tug of war between the management and majority owners, MediaSet SpA have brought ProSieben under media spotlight. Max Conze, ProSieben's CEO since mid-2018, has come under increasing pressure to turn around the struggling business, and showed little enthusiasm for a Pan European media conglomerate proposed by MediaSet, a firm controlled by the family of former Italian Prime Minister Silvio Berlusconi accused of several financial scandals. On 23<sup>rd</sup> March 2020, MediaSet SpA reportedly increased its stake in ProSieben to just under. Within 48 hours, Conze became the latest high profile name to join the exodus of several top executives, leaving ProSieben after Deputy CEO Conrad Albert exited his position earlier in the month after slamming what he called a "boardroom soap opera" at the German broadcaster.

The cyclical process of removal/resignation of the top leaders has been pivotal in policy mismanagement issues and a lack of leadership at ProSieben. (exhibit 6)

## Declining business fundamentals

With decreasing margins, a failing digital sector and a deteriorating core business, ProSieben is displaying all signs of a company in advanced decaying stages. It is weak from a fundamental point of view which is reflected in the company's share price — having fallen from EUR 48.98 to EUR 6.65 in the last 5 years. Here are some of the glaring issues faced by ProSieben:

#### Loss of market

ProSieben has been among the biggest victims of the growing OTT platform popularity, having witnessed significant market erosion with the rise of Netflix, Amazon Prime Video, to name a few. The fact that ProSieben lacks any sports coverage audience, something which traditional cable operators have been able to upsell into high margin media subscriptions, has acted like a double whammy. (exhibit 7)

## Time Spent Watching Traditional TV, By Age Group

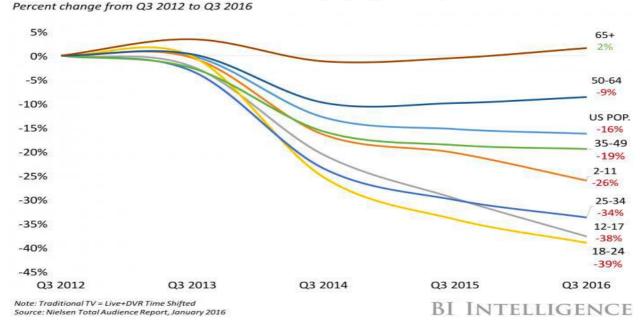


Exhibit 7: Percentage change in time spend watching TV by different age groups in Germany

#### Loss of market share

ProSieben's case is not helped by the fact that its entertainment division has continued to lose market share in an already shrinking TV market. Its performance in the Swiss and Austrian markets has witnessed a similar downward trajectory, where the ProSieben group enjoys an even smaller market share. The decreasing market share is also likely to effect the growth for NuCom's commerce products, which has largely relied on the entertainment segment for its marketing functions.

Continuing Trend: Declining Market share for 6 straight quarters in Germany											
	2016 2017										
	Q1	Q2	Q3	Q4	Full year	Q1	Q2				
Market share in %	28.1	27.8	27.5	28.5	28	26.8	27.1				
Decline year-on-year	-2.8	-6.7	-8.6	-3.1	-5.1	-4.6	-2.5				

Exhibit 8: Declining market share for ProSieben's entertainment segment in Germany

## Mounting financial debt

ProSieben's debt burden has increased over the last 2 years and worryingly, the company still has significant financing needs, a direct consequence of it scattergun M&A activity and mismanaged financing decisions. In 2015, ProSieben raised a debt of EUR 617 millions to pay dividends and in 2016 caused another stir in the market by announcing a EUR 515 million capital raise, just 4 months after distributing a EUR 363 million dividend. In its annual report for 2019, ProSieben mentioned about a dividend equivalent to 50% of net income.

#### The effect of GDPR

EU had introduced a set of standards to regulate the Online advertising's use of personal data called as the General Data Protection Regulation (GDPR). In the new set of standards users are in control whether to share their personal data with the company or not.

We believe that the GDPR will have a profound effect on ProSieben who derive significant amounts of revenue from displaying targeted ads based on personal information collected from consumers.

## The Way Forward

Among the share of problems discussed in the report, we believe that one particular issue which has thus far contributed the most to the stagnation at ProSieben has been a difference in approach adopted by the management and ownership.

Earlier in March 2020, MediaSet's CFO Marco Giordani commented that "MediaSet would decide whether "to stay, to leave or to increase" its investment in ProSieben based on its strategy update next month. Thus, Mediaset's additional 5% investment in ProSiebenSat.1 could be considered as "largely opportunistic," driven by the record low price of its shares. It appears MediaSet believes the shares of ProSieben are cheap enough to make the most of the prospects for free-to-air broadcasting in Europe and is therefore trying to accelerate its path to "European consolidation" by increasing its influence over ProSieben.

The management however has vouched for a different strategy. Former ProSieben CEO Max Conze consistently downplayed the idea of cross-border cooperation during his helm, preferring to focus on regional partnerships. In November 2019 at a conference in Barcelona, Conze remarked that "a corporate merger of Mediaset and ProSieben could lead to the two companies getting sucked into years of structural work that doesn't really build the future," saying he thought more progress could be made by focusing on collaboration in digital growth areas.

As CEO at ProSieben, Conze restructured the company into three divisions and bolstered its e-commerce portfolio to diversify away from traditional commercial TV. His belief was evident from the fact that he backed his own strategy by investing 2 million eur in ProSieben stock. Infact ProSieben's annual report last year noted that:

"The e-commerce subsidiary NuCom as an important pillar of the group in synergistic terms, with a focus to develop these assets to generate shareholder value in due course".

In our analysis of the Media & Entertainment industry, we reckon that consumption of media by masses has changed dramatically over the past decade, creating both opportunities and challenges for the broadcasting players. A shift in consumer habits has led to massive changes in how people access media and how they shop for products and services.

Albeit short term pain, ProSieben seemed to be on track to build a valuable e-commerce portfolio, benefitting from the advertisement platform offered by its entertainment business. A reference to Exhibit 9 shows that while growth in revenues from Entertainment segment continues to decline, the other two divisions at ProSieben continues to show signs of promise.

## GROUP REVENUES BY SEGMENT in EUR m

	2019	2018	Absolute change	Change in %
Entertainment	2,518	2,626	-108	-4.1
Content Production & Global Sales	652	552	100	18.1
Commerce	965	831	134	16.1
Revenues	4,135	4,009	126	3.1

Exhibit 9: Segment revenues for ProSieben (FY 2019) Source: Annual Report 2019

MediaSet's proposal to rather focus on creating a Pan European broadcast group is thus puzzling. Despite the markets being quite close culturally in Spain and Italy, they have not been able to create meaningful synergies, in neither content nor advertising. We wonder why and how would they manage to achieve better results in a different German, Austrian and Swiss TV market.

The corporate strategy seems overly optimistic, ambitious and not well thought out, to say the least.

Approaching the situation as an activist investor, we see a tremendous opportunity in ProSieben from a valuation point of view. ProSieben's smart advertising business and NuCom Group's commerce business registered strong double digit growth in revenues in 2019 and the prospects appear bright for future growth. It also appears well positioned overall to make systematic use of potential opportunities that could also arise from consolidation or closer collaboration in the industry.

At 8.5 X EBITDA for FY 19 we value the company at 7.05\$. With a an acquisition premium of 20%, we propose to acquire a 10% stake in the company with the warrants to buy additional 5% stake in 3 years. To maximize shareholder value we suggest the following strategies.

## Strategic tie up with a Media-Services giant

**OVERVIEW OF THE TOP RISKS** 

With changing consumer behaviour and expectations, the media industry has made great strides towards digitalization. Their expectations are built around instant gratification to consume the content globally. Thus, as the boundaries between industries blur, customers judge their experience of a service not just against competitors in a particular sector, but against the best services from other industries.

The mobile channel has surpassed TV in growth as it became the preferred video delivery medium. This growth is being fuelled in part by mobile networks' rush to offer broadband and LTE services. Partnerships between streaming services and mobile networks are mushrooming.

A dominant player from the age of analog broadcasters, ProSieben has failed to overhaul its processes, structures and operations to become a true digital player. Its Joyn model has barely made a dent, even in the German speaking regions. To survive in this market, we recommend ProSieben to make a quick transition to wholesale digitization of its operations and adapt its business to mobile devices by joining hands with an established player in the industry, Amazon Prime Video. (exhibit 10)

#### very high Entertainment Segment Operating risks ► General sector risks (e.g consume External risks 20,000 trends) Sales risks ► Entertainment reach (TV and digital) high 3 Fintertainment sales (TV and digital) 10,000 mpact in TEUR Group medium External risks 4 ▶ General economic risks Operating risks 4,000 Finance risks 5 - Counterparty risks Compliance risks ► General compliance (incl. statutory reporting obligations, antitrust, litigation, 1,000 data protection and eprivacy) very low 0 30 50 80 100 very unlikely unlikely possible

Exhibit 10: ProSieben's 2019 Annual Report reflects the biggest and most likely risk faced by company is falling Entertainment sales.

Merging with Amazon Prime Video would give a fresh injection of content to an ill equipped content portfolio at ProSieben's Joyn platform and help drive numbers for the entertainment segment which seems to be an perpetual downward trajectory. More importantly, with cash rich platforms of Apple and Google foraying into international markets, Prosieben does not have the ammunition needed to compete in what could be a long resource driven war of capturing market share.

The partnership also brings to value to Amazon. Netflix and Amazon's dominance in the over-the-top (OTT) video market is on course to face stiff challenge from a host on new entrants. There is growing evidence that consumers are growing frustrated with having to manage and pay for multiple subscriptions to watch what they want. The problem for Media services giants is only aggravated by the proof that content fragmentation is well on its way. More content producers initiate their own streaming services, the fight for retention for profitable content is inevitable. Case in point – Netflix's retention for WarnerMedia's famous TV Sitcom 'Friends'.

A win-win proposition for both companies could be an entry in the live sports streaming space. Traditional mediums – Satellite and cable – continue to the most preferred modes for live broadcasts. At the same time, OTT is gaining popularity for live streaming, especially among Millennials, who spend more time streaming content over the internet than watching it on television. Live streaming can prove to be a robust marketing

channel for many companies owing to the fact that live streams are sent directly to audiences who are interested in the broadcast in the first place.

With broadcasting rights (2020-2024) for the German Bundesliga up for grabs in June 2020, a combined bid by the joint venture has the potential to offer synergies. Amazon have previously expressed interest in these broadcasting rights and failed with a bid in 2016. Among the most followed sporting leagues globally, The Bundesliga would be a worthy addition to Amazon's international sports portfolio while ProSieben would have the opportunity to gain on its falling TV market share in Germany. (exhibit 11)

## Global expansion of NuCom portfolio

As e-commerce grows and takes greater share of total retail sales, digital media companies are increasingly pursuing new sources of revenue growth by incorporating e-commerce into their platforms and businesses. ProSieben was among the early entrants in this industry and the NuCom business continues to be its predominant growth driver, making a significant contribution to the expansion of digital revenue sources.

So far, ProSieben has been able to strengthen its commerce brands by advertising it on their stations and using the in-house trading platforms to supply data for target advertising. Margins however in the commerce segment remain low at 10.2% and the market is saturated in certain areas. For example, Parship and ElitePartner portals at NuComp already contribute to 43% of to the total revenues of the Online Dating market segment in Germany. Growth and profitability therefore is more likely to come from new and unexplored markets.

We suggest the following strategies to generate greater revenues for the NuCom portfolio

#### **Affiliate Marketing Content**

Set up an Affiliate Marketing Network for pushing products under the Falconi, Amorelie, mydays and Stylist portfolio into East European and Asian markets. The mid-range fashion products offered under these brands can serve an emerging middle class market in the economies and contribute towards a multifold growth in Nucom's overall revenue. Affiliate Marketing networks are cost effective to set up, quickly scalable and can be easily integrated with other marketing strategies. (exhibit 12)

### Tie ups with Social Media firms

Social media platforms have emerged as major channels for building brand equity, with 55% of the Millennials claiming to discover new products through them, a market essentially not captured by the entertainment platforms offered by ProSieben. Collaborating with Social Media platforms such as Snapchat and Instagram to create and roll out e-commerce tools would allow ProSieben to target millions of young users — as they are likelier to purchase goods via mobile devices.

#### Collaboration with Amazon

Building on the advisory in Point 1, a collaboration with Amazon can create multiple synergy points for ProSieben:

- Bundle products under NuCom with Amazon Prime Video subscriptions to access a new market at discounted prices.
- Access to 175 Fulfilment centres in 150 countries to bring down the logistic costs for entering new markets.

#### **Acquisition in Data Analytics**

Our third corporate advice involves utilization of data collection and data analytics, which would offer ProSieben greater consumer insights across multiple devices and channels. In an era where there is a plethora of content

available online, with hundreds of new additions every day, consumers need better personal filters that deliver personalised recommendations.

Therefore contextual information is important here to offer relevant and meaningful content to consumers and built experimental products and services around that content.

SevenOne Media, one of the subsidiaries of ProSieben, offers services in data analytics and target advertising to specific group of companies. However, a major hurdle in our opinion could arise from data sensitivity and privacy concerns. To make a point in the case - recently, the European Commission took on Google in a regulatory battle, investigating whether the tech giant used its dominance in internet search and search result history of millions of users to its own commercial benefit. Since the financial and reputational costs of these proceedings can result significant damage for an organisation, we recommend an acquisition in the data analytics space to ensure transparency.

In our opinion, an acquisition at EUR 220 millions in Quoble, which would allow ProSieben gain hidden insights into customer behaviour and trends, drive its digital transformation, develop better promotional and product strategies for its NuCom division and reduce is investment risk while green-lighting movies.

Netflix Inc. has benefitted from this strategy by using data to offer better recommendations and to decide what content to commission or license, spending close to \$150 millions annually. It led to the creation of hit sitcom 'House of Cards', which Netflix claimed would be success even before it was released. The logic: Netflix relied heavily on data, rather than opting the traditional approach of getting the creative directors in a room, brainstorming and creating a pilot.

Another popular example is the music streaming service, Pandora, which provides recommendations to users based on their listening habits. Its algorithm analyses up to 450 characteristics in a song, and uses the data set to offer a unique and customized experience to each listener.

We suggest ProSieben to make the most of data analytics in its business operations in the following ways:

#### Recommendation engines

Processing data for previously mentioned items/searches to gauge consumer's preferences and emotional attitude, to base relevant accurate and relevant content recommendations, providing a chance to focus better on user's desires and feelings.

#### Real-time analytics

With the vast amount of data available for the Media & Entertainment industry, speed of analysis will be a differentiating factor. Utilising Real-time analytic algorithms will play a pivotal role in reducing time involved in taking crucial decisions and improvements to the content structure.

#### Control over last-mile delivery

With a combination of devices and transport mechanisms in use, media companies have little to no control over how their content reached the end consumer. Data analytics can therefore be deployed by ProSieben to flag potential issues with its partners – especially with considering that the 'Joyn' platform is in its nascent stages, to ensure that consumer experience remains seamless.

#### Personalised Marketing Algorithms

To make the most of the synergy potentials between its entertainment business and commerce unit, NuCom, ProSieben should target personalized marketing algorithms, capable of recognizing and dragging out relevant information from the consumers engaged in ProSieben's entertainment business content. This could open doors for ProSieben to offer personalized products and services according to behavioural insights.

# **Appendix**

Profit of subsidiaries (EUR m)												
	Mydays Group SilverTours Tropo Wetter.com Comvel Discavo Etraveli Group											
2012	8.33	6.02	-1.93	3.98				16.40				
2013	-0.07	4.89	-4.53	0.29	-0.36	-0.60		-0.38				
2014	-6.61	6.82	-2.84	4.50	-3.67	-2.19	1.21	-3.99				
2015	-3.52	4.88			0.29		0.10	2.04				
Total	-1.87	22.61	-9.30	8.77	-3.74	-2.79	1.31	14.07				

Exhibit 3: Profitability of ProSieben's travel cluster

	F	Profit of subsidiaries (E	UR m)	
	SevenGames	<b>Aeria Games</b>	gamigo	Total
2012	1.31			1.3
2013		0.49		0.4
2014		-11.91		-11.9
2015				0.0
2016		-30.00	-4.00	-34.0
Total	1.31	-41.42	-4.00	-44.1

Exhibit 4: Profitability of ProSieben's gaming cluster

					<b>Put option liability</b>	
		Initial stake	<b>Initial Consideration</b>		at time of	
Company Acquired	Date	acquired	(EURm)	Put option stake	acquisition (EURm)	Put option premium
Kinetic Content LLC	Aug-10	51%	3.9	49%	9.2	141%
Covus Games GmbH	May-11	51%	1.9	49%	5.0	174%
The Mob Film Holdings Limited	Apr-11	51%	1.5	49%	7.4	413%
Left/Right Holdings LLC	Aug-12	60%	24.2	40%	14.2	-12%
Half Yard Productions LLC	Feb-14	65%	18.1	35%	13.1	34%
Collective Digital Studio LLC	Apr-15	70%	191.9	25%	87.4	28%
Virtual Minds AG	Sep-15	51%	29.5	49%	35.7	28%
Crow Magnon LLC	Nov-15	60%	27.9	40%	14.9	-20%
Dorsey Pictures LLC	Jan-16	60%	26.0	40%	18.0	4%
44 Blue Studios LLC	Jul-16	65%	19.0	35%	14.0	37%
				Total		
			1	42%		

Exhibit 5: Mounting put liabilities for ProSieben

Year	Month	Name	Position
2014	October	Arnd Benninghoff <sup>33</sup>	Chief Digital Officer
2016	September	Jack Artmen <sup>34</sup>	Executive VP of Mergers & Acquisitions
	June	Hanno Fichtner <sup>35</sup>	Chief Digital Strategy Officer
	December	Christian Wegner <sup>36</sup>	Chief Officer of Digital & Adjacent
		Andreas Boelte <sup>37</sup>	Managing Director of 7Life
2017	January	Markus Frerker <sup>38</sup>	Chief Officer of Group Content
	February	Eva Adelsgruber <sup>39</sup>	Managing Director of 7Screen
	March	Gunnar Wiedenfels <sup>40</sup>	Chief Financial Officer
		Michael Green <sup>41</sup>	Chairman of Studio71
		Manuel Alvarez von Zerboni di Sposetti <sup>42</sup>	Chief Accounting and Tax Officer
	April	Rene Carl <sup>43</sup>	Managing Director of ProSieben & ProSieben Maxx
		Thorsten Putsch <sup>44</sup>	Managing Director of kabel eins Doku
		Julian Geist <sup>45</sup>	EVP of Communications & Public Affairs
	May	Daniel Raab <sup>46</sup>	Managing Director of 7Commerce
		Marvin Lange <sup>47</sup>	CEO of Maxdome
	July	Ralf Schremper <sup>48</sup>	Chief Strategy and Investment Officer
		Sascha van Holt <sup>49</sup>	CEO of 7Ventures
		Nicole Gerhardt <sup>50</sup>	Head of Human Resources
	August	Filmon Zerai <sup>51</sup>	Chief Digital Officer, former CEO of Maxdome
	September	Johannes Keienburg <sup>52</sup>	EVP of Group Strategy & Ops, MD of 7Commerce
	November	Thomas Ebeling <sup>53</sup>	CEO of ProSieben

Exhibit 6: Details of Key Managerial Personnel to depart ProSieben between 2014-2017

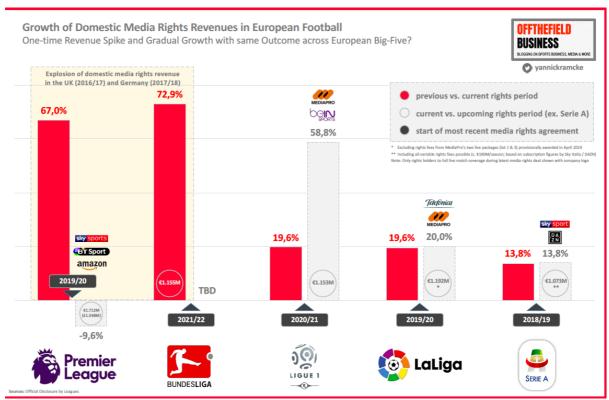


Exhibit 11: The German Bundesliga is the highest revenue generating football league in EU.

		Histo	rical Results			Forecast Period					
FINANCIAL STATEMENTS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	
Assumptions											
Income statement											
Revenue Growth (% Change)		16.5%	7.3%	-1.7%	3.1%						
Segmnted Revenue growth											
Entertainment	na	23.6%	2.7%	-3.9%	-4.1%	-4.0%	-4.0%	-4.2%	-4.5%	-5.0%	
Content production & Global Sales	na	-55.2%	39.5%	4.1%	18.1%	8.0%	8.0%	8.0%	8.0%	8.0%	
Commerce	na	191.3%	7.3%	1.9%	16.1%	8.0%	8.0%	8.0%	8.0%	8.0%	
Cost of Goods Sold (% of Revenue)	54.1%	53.2%	58.6%	64.1%	57.5%	57.5%	57.5%	57.5%	57.5%	57.5%	
Administrative expenses (% of Revenue)	12.7%	13.3%	14.5%	14.9%	13.9%	13.8%	13.8%	13.8%	13.8%	13.8%	
Tax Rate (% of Earnings Before Tax)	34.4%	31.4%	25.5%	27.3%	28.1%	33.0%	32.0%	34.0%	35.0%	34.0%	
Balance Sheet											
Trade Receivable (Days)	43	78	67	75	74	75	77	80	80	83	
Inventory (Days)	2	5	6	6	7	7	6	6	6	6	
Accounts Payable (Days)	93	95	83	78	102	100	100	100	100	100	

These are the important assumptions we thought for the business. For other items, we took most of the time, the average of the precedent values.

Exhibit 12: Assumptions to valuate Prosieben

		Hist	orical Results				Fo	recast Period		
FINANCIAL STATEMENTS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Income Statement (in millions of €)										
Segmented Revenue										
Entertainment	2,152	2,659	2,732	2,626	2,518	2,417	2,321	2,223	2,123	2,017
Content production & Global Sales	848	380	530	552	652	704	760	821	887	958
Commerce	261	760	816	831	965	1,042	1,126	1,216	1,313	1,418
Total Revenue	3,260.7	3,799.0	4,078.0	4,009.0	4,135.0	4,163.6	4,206.7	4,260.1	4,323.0	4,392.8
	34.0%	30.0%	33.0%	34.5%	39.1%	41.9%	44.8%	47.8%	50.9%	54.19
EBITDA										
Revenue	3,260.7	3,799.0	4,078.0	4,009.0	4,135.0	4,163.6	4,163.6	4,158.6	4,151.1	4,138.
Cost of Goods Sold (COGS)	-1,763.9	-2,020.0	-2,390.0	-2,569.0	-2,377.0	-2,393.6	-2,393.6	-2,390.7	-2,386.4	-2,379.
Gross Profit	1,496.8	1,779.0	1,688.0	1,440.0	1,758.0	1,770.0	1,770.0	1,767.9	1,764.7	1,759.
Expenses										
Selling expenses	-371.5	-520.0	-577.0	-532.0	-627.0	-525.5	-525.5	-525.5	-525.5	-525.
Administrative expenses	-412.5	-506.0	-590.0	-596.0	-576.0	-536.1	-560.8	-571.8	-568.1	-562.
Other operating expenses	-7.6	-11.0	-32.0	-14.0	-11.0	-15.1	-16.6	-17.7	-14.9	-15.
Other operating income	24.7	34.0	332.0	50.0	35.0	95.1	109.2	124.3	82.7	89.
Total operating Expenses	-766.9	-1,003.0	-867.0	-1,092.0	-1,179.0	-981.6	-993.7	-990.8	-1,025.8	-1,013.
Operating result	729.9	776.0	821.0	348.0	579.0	788.5	776.3	777.1	738.9	745.
Interest and similar income	1.4	5.0	2.0	7.0	2.0	3.5	3.9	3.7	4.0	3.
Interest and similar expenses	-93.4	-89.0	-85.0	-70.0	-58.0	-79.1	-76.2	-73.7	-71.4	-71.
Interest result	-92.0	-84.0	-83.0	-63.0	-56.0	-75.6	-72.3	-70.0	-67.4	-68.
Result from investments accounted for using the equity										
method	4.7	-1.0	-10.0	-13.0	-50.0	-13.9	-17.6	-20.9	-23.1	-25.
Other financial result	-39.0	-34.0	-82.0	72.0	100.0	3.4	11.9	21.1	41.7	35.
Financial result	-126.3	-119.0	-175.0	-4.0	-6.0	-86.1	-78.0	-69.8	-48.8	-57.
Result before taxes	603.6	657.0	646.0	344.0	573.0	702.4	698.3	707.3	690.1	687.
Income Taxes	-207.7	-206.0	-165.0	-94.0	-161.0	-231.8	-223.5	-240.5	-241.5	-233.
Result for the period from continuing operations	395.9	451.0	481.0	250.0	412.0	470.6	474.9	466.8	448.6	453.
Discontinued operations										
Result from discontinued operations (net of income taxe	0.3	-41.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Net Earnings	396.2	410.0	481.0	250.0	412.0	470.6	474.9	466.8	448.6	453.9

Exhibit 13: Forecasted Income Statement

		Hist	orical Results				Foi	recast Period		
FINANCIAL STATEMENTS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Balance Sheet (in millions of €)										
Assets										
Non current assets										
Goodwill	1,655.6	1,860.0	1,831.0	1,962.0	2,108.0	2,108.0	2,108.0	2,108.0	2,108.0	2,108.0
Other intangible assets	552.8	817.0	745.0	824.0	835.0	754.8	754.8	754.8	754.8	754.8
Property, plant and equipment	226.3	216.0	205.0	327.0	351.0	265.1	265.1	265.1	265.1	265.1
Investments accounted for using the equity method	24.6	109.0	108.0	77.0	27.0	69.1	69.1	69.1	69.1	69.1
Non-current financial assets	291.5	331.0	175.0	244.0	316.0	271.5	271.5	271.5	271.5	271.5
Programming assets	1,153.4	1,166.0	1,021.0	937.0	1,057.0	1,179.4	1,350.6	1,564.0	1,403.7	1,279.2
Other receivables and non-current assets	15.5	11.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Deferred tax assets	13.4	30.0	34.0	95.0	59.0	47.7	47.7	47.7	47.7	47.7
Total Non current assets	3,933.1	4,540.0	4,123.0	4,470.0	4,757.0	4,699.6	4,870.8	5,084.2	4,923.9	4,799.4
Current assets										
Programming assets	99.0	146.0	177.0	177.0	148.0	149.4	149.4	149.4	149.4	149.4
Inventories	8.3	29.0	39.0	42.0	48.0	45.9	39.3	39.3	39.2	39.1
Current financial assets	72.5	91.0	52.0	69.0	67.0	70.3	70.3	70.3	70.3	70.3
Trade receivables	383.3	446.0	501.0	529.0	530.0	855.5	878.4	911.5	909.8	941.1
Current tax assets	21.8	23.0	41.0	98.0	48.0	46.4	46.4	46.4	46.4	46.4
Other receivables and current assets	65.0	57.0	53.0	53.0	46.0	54.8	54.8	54.8	54.8	54.8
Cash and cash equivalents	734.4	1,273.4	1,573.4	1,046.4	964.4	933.7	815.9	639.0	363.7	-24.9
Assets held for sale			31.0		17.0	9.6	9.6	9.6	9.6	9.6
Total current assets	1,384.3	2,065.4	2,467.4	2,014.4	1,868.4	2,165.7	2,064.2	1,920.2	1,643.3	1,285.8
Total Assets	5,317.4	6,605.4	6,590.4	6,484.4	6,625.4	6,865.3	6,935.0	7,004.4	6,567.1	6,085.2
- "										
Equity						200.0		200.0		
Subscribed capital	218.8	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0	233.0
Capital reserves	600.4	1,054.0	1,055.0	1,043.0	1,045.0	1,045.0	1,045.0	1,045.0	1,045.0	1,045.0
Consolidated equity generated	263.0	42.0	79.0	-119.0	25.0	58.0	58.0	58.0	58.0	58.0
Treasury shares	-20.0	-14.0	-13.0	-64.0	-63.0	-34.8	-34.8	-34.8	-34.8	-34.8
Accumulated other comprehensive income	149.6	171.0	-16.0	36.0	55.0	79.1	79.1	79.1	79.1 -145.0	79.1 -145.0
Other equity	-53.6	-79.0	-113.0	-246.0	-236.0	-145.0	-145.0	-145.0		
Total equity attributable to shareholders of ProSiebenS	921.6 21.5	1,408.0 24.0	1,226.0 26.0	883.0 187.0	1,059.0 229.0	1,235.3 200.0	1,235.3 200.0	1,235.3 200.0	1,235.3 200.0	1,235.3 200.0
Non-controlling interests  Total equity	943.1	1,432.0	1,252.0	1,070.0	1,288.0	1,435.3	1,435.3	1,435.3	1,435.3	1,435.3
	343.1	1,432.0	1,232.0	1,070.0	1,200.0	1,400.0	1,400.0	1,433.3	1,433.3	1,433.3
Non Current Liabilities Non-current financial debt	2,673.7	3,178.0	3,180.0	3,189.0	3,190.0	3,082.1	3,082.1	3,082.1	3,082.1	3,082.1
Other non-current financial liabilities	359.7	406.0	473.0	349.0	329.0	383.3	383.3	383.3	383.3	102.0
Trade payables	67.2	70.0	50.0	53.0	79.0	80.0	80.0	80.0	80.0	80.0
Other non-current liabilities	33.7	16.0	7.0	6.0	15.0	15.5	15.5	15.5	15.5	15.5
Provisions for pensions	22.9	26.0	37.0	36.0	31.0	30.6	30.6	30.6	30.6	30.6
Other non-current provisions	17.1	42.0	57.4	111.0	62.4	60.0	60.0	60.0	60.0	100.0
Deferred tax liabilities	245.0	335.0	253.0	239.0	236.0	261.6	261.6	261.6	261.6	123.0
Total Non Current Liabilities	3,419.3	4,073.0	4,057.4	3,983.0	3,942.4	3,913.2	3,913.2	3,913.2	3,913.2	3,533.3
Current Liabilities										
Current financial debt	1.1	7.0	4.0	5.0	5.0	4.4	5.1	4.7	4.8	4.8
Other current financial liabilities	146.7	102.0	145.0	200.0	116.0	141.9	141.0	148.8	50.0	50.0
Trade payables	450.0	527.0	541.0	550.0	667.0	655.8	655.8	655.0	653.8	651.8
Other current liabilities	242.6	303.0	357.0	362.0	357.0	357.0	357.0	357.0	100.0	100.0
Current tax liabilities	61.7	76.0	120.0	116.4	110.0	110.0	110.0	110.0	110.0	110.0
Other current provisions	52.9	85.4	107.0	198.0	140.0	247.6	317.6	373.5	300.0	200.0
Liabilities associated with assets held for sale	OE.U	50.7	7.0	.50.0	. 70.0	0.0	0.0	7.0	0.0	0.0
Total Current Liabilities	955.0	1.100.4	1.281.0	1,431,4	1,395.0	1,516.8	1,586.5	1,655.9	1,218.6	1,116.6

Exhibit 14: Forecasted Balance Sheet

FINALICAL STATEMENTS			Histo	orical Results				For	ecast Period		
Page	FINANCIAL STATEMENTS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Department   Dep	Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Department   Dep	Cash Flow Statement (in millions of €)										
Income takes   1977   2080   1860   940   1810   2318   2235   2405   2415   2338   2376   1876											
Income takes   1977   2080   1860   940   1810   2318   2235   2405   2415   2338   2376   1876	Net Earnings	396.2	410.0	481.0	250.0	412.0	470.6	474.9	466.8	448.6	453.9
Deposition, amoritación and impairments of other   151.1   208.0   208.0   220.0   230.0   200.0   190.0   170.0   170.0   100.0   1			206.0	165.0	94.0	161.0	231.8	223.5	240.5	241.5	233.8
Consumption of programming sesses incic charge in   982,0   912,0   1,440   1,319,0   988,0   1,043,2	Financial result	126.4	119.0	174.0	4.0	6.0	86.1	78.0	69.8	48.8	57.7
Consumption of programming sesses incic charge in   982,0   912,0   1,440   1,319,0   988,0   1,043,2	Depreciation, amortization and impairments of other	151.1	206.0	263.0	222.0	260.0	235.0	210.0	200.0	190.0	170.0
Change in provisions   2.3   25.0   4.0   -15.0   -12.0   -10.0   -1			912.0	1,140.0	1,319.0	958.0	1.043.2	1.043.2	1.043.2	1.043.2	1.043.2
Samity source   Samity sourc		22.3	25.0	4.0	-15.0	-12.0	-10.0	-10.0	-10.0	-10.0	-10.0
Cash from disc operations		-7.0	-7.0	-303.0	-20.0	-1.0	-60.0	-60.0	-60.0	-60.0	-60.0
Cash from disc operations		-0.1					0.0	0.0	0.0	0.0	0.0
Deta non-cash income/segreenees   1,2   3,0   4,0   3,0   5,0		-2.1					-0.4	-0.4	-0.4	-0.4	-0.4
Charge invoking capital   1-20   1-40   -880   -840   -840   -800   -8			3.0	4.0	-3.0	-5.0					
Dividents received   6.6   6.0   6.0   7				-88.0	-84.0						
Increase paid											
Interest paid											
Interest received   0.6   3.0   3.0   4.				-65.0	-63.0	-54.0	-50.0	-50.0	-50.0	-50.0	-50.0
Investing Cash Flow   Proceeds from disposal of non-current assets   3.0   33.0   38.0   31.0   38.0   28.8   28											
Proceeds from disposal of non-current assets   3,0   33,0   38,0   31,0   39,0   28,8   28,											
Proceeds from disposal of non-current assets   3.0   33.		,,	,,	,,	,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	,			.,
Payments for the acquisition of other intangible and   122.5   -160.0   -156.0   -156.0   -161.0   -213.0   -230.0   -300.0   -300.0   -300.0   -300.0   -500.0   -505.7	Investing Cash Flow										
Priyments for the acquisition of financial assets 41,7 9.00 2.80 44,0 7.50 5.57 5.57 5.57 5.57 5.57 5.57 5.5	Proceeds from disposal of non-current assets	3.0	33.0	38.0	31.0	39.0	28.8	28.8	28.8	28.8	28.8
Proceeds from disposal of programming assets 15.2 17.0 2.3.0 17.0 2.0.0 18.4 18.4 18.4 18.4 18.4 18.4 18.4 Payments for the acquisition of programming assets .943.9 992.0 -1,048.0 -1,070.0 -1,070.0 -1,072.0 -1,025.2 -1,	Payments for the acquisition of other intangible and	-122.5	-160.0	-156.0	-161.0	-213.0	-250.0	-300.0	-350.0	-400.0	-500.0
Payments for the acquisition of programming assets   -943,9   -992,0   -1,048,0   -1,070,0   -1,072,0   -1,025,2   -1,0	Payments for the acquisition of financial assets	-41.7	-90.0	-28.0	-44.0	-75.0	-55.7	-55.7	-55.7	-55.7	-55.7
Payments for the issuance of loan receivables	Proceeds from disposal of programming assets	15.2	17.0	23.0	17.0	20.0	18.4	18.4	18.4	18.4	18.4
Proceeds for the issuance of loan repayments from exit         2.1         0.0         1.0         0.0         0.0         0.6         0.6         0.6         0.6           Proceeds from the repayment of loan recevables         0.0         0.0         1.0         0.0         0.0         0.0         3.3 <td< td=""><td>Payments for the acquisition of programming assets</td><td>-943.9</td><td>-992.0</td><td>-1,048.0</td><td>-1,070.0</td><td>-1,072.0</td><td>-1,025.2</td><td>-1,025.2</td><td>-1,025.2</td><td>-1,025.2</td><td>-1,025.2</td></td<>	Payments for the acquisition of programming assets	-943.9	-992.0	-1,048.0	-1,070.0	-1,072.0	-1,025.2	-1,025.2	-1,025.2	-1,025.2	-1,025.2
Proceeds from the repayment of loan receivables 0.0 0.0 1.0 1.0 0.0 0.0 0.4 0.4 0.4 0.4 0.4 0.4 0.5 0.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Payments for the issuance of loan receivables	-3.5	0.0	0.0	-14.0	-1.0	-3.7	-3.7	-3.7	-3.7	-3.7
Cash flow from investing in disc operations         16.5         0.0         0.0         0.0         0.0         3.3         3.8         2.88.9         2.	Proceeds for the issuance of loan repayments from exte	2.1	0.0	1.0	0.0	0.0	0.6	0.6	0.6	0.6	0.6
Cash flow from obtaining control of subsidiaries or Cash flow from losing control of subsidiaries or other         4.6         -11.0         473.0         6.0         5.0         93.7         17.28         17.28         17.28         13.6         435.0         443.0         -269.0         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8	Proceeds from the repayment of loan receivables	0.0	0.0	1.0	1.0	0.0	0.4	0.4	0.4	0.4	0.4
Cash flow from losing control of subsidiaries or other         -4.6         -11.0         473.0         6.0         5.0         93.7         17.8         14.7         15.0         15.0         442.0         -260.0         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8         -374.8	Cash flow from investing in disc operations	16.5	0.0	0.0	0.0	0.0	3.3	3.3	3.3	3.3	3.3
Cash from Investing	Cash flow from obtaining control of subsidiaries or	-425.6	-420.0	-197.0	-302.0	-100.0	-288.9	-288.9	-288.9	-288.9	-288.9
Financing Cash Flow	Cash flow from losing control of subsidiaries or other	-4.6	-11.0	473.0	6.0	5.0	93.7	93.7	93.7	93.7	93.7
Dividend paid   Astrophysical paid   Astrophysica	Cash from Investing	-1,505.0	-1,623.0	-893.0	-1,536.0	-1,397.0	-1,478.3	-1,528.3	-1,578.3	-1,628.3	-1,728.3
Dividend paid   Astrophysical paid   Astrophysica	Financing Cash Flow										
Repayment of interest-bearing liabilities   333.0   -316.0   -9.0   -1.0   -13.0   -10.0   -		-341.9	-386.0	-435.0	-442.0	-269.0	-374.8	-374.8	-374.8	-374.8	-374.8
Proceeds from issuance of Interest-bearing liabilities 95.0 807.0 7.0 10.0 33.0 30.0 30.0 30.0 30.0 30.0 30											
Repayment of lease liabilities											
Proceeds from the sale of treasury shares 6.0 2.0 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6											
Proceeds from the share issuance 512.0		-12.1			40.0	72.0					
Repurchase of treasury shares   -14.3   -50.0   -12.9   -12.9   -12.9   -12.9   -12.9   -12.9     Proceeds from the sale of shares in other entities without change in   -1.0				2.0							
Proceeds from the sale of shares in other entities without change in 4.8 -1.0 -9.0 -222.0 -5.0 -5.0 -5.0 -5.0 -5.0 -5.0 -5.0 -5		-14.3	312.0		50.0						
Payments for shares in other entities without change in 4.8 -1.0 -9.0 -222.0 -5.0 -5.0 -5.0 -5.0 -5.0 -5.0 -5.0 -5				52.0							
Proceeds from non-controlling interests         1.0         1.0         15.0         7.0         6.0         6.0         6.0         6.0         6.0           Payments in connection with refinancing measures         -2.0         -5.0         -5.0         -3.5         -15.9         -399.2         -399.2         -399.2         -399.2         -399.2         -399.2         -399.2         -399.2         -399.2         -399.2			-10			-5.0					
Payments in connection with refinancing measures -2.0 -5.0 -3.5 -3.5 -3.5 -3.5 -3.5 -3.5 -3.5 -3.5		4.0									
Dividend payments to non-controlling interests         -11.7         -21.0         -15.0         -26.0         -6.0         -15.9         -359.2					10.0	1.0					
Cash from Financing         242.0         585.0         -427.0         -467.0         -295.0         -359.2		-11.7			-26.0	-60					
Effect of foreign exchange rate changes on cash an Change in cash and cash equivalents 263.8 539.0 300.0 527.0 82.0 -30.7 -117.8 -177.0 -275.2 -388.7 Cash and cash equivalents at beginning of reporting peri 470.6 734.4 1,273.4 1,573.4 1,046.4 964.4 933.7 815.9 639.0 363.7											
Change in cash and cash equivalents         263.8         539.0         300.0         -527.0         -82.0         -30.7         -117.8         -177.0         -275.2         -388.7           Cash and cash equivalents at beginning of reporting peri         470.6         734.4         1,273.4         1,573.4         1,046.4         964.4         933.7         815.9         639.0         363.7	Cash iron Financing	242.0	303.0	-421.0	-407.0	-233.0	-335.2	-335.2	-335.2	-335.2	-335.2
Change in cash and cash equivalents         263.8         539.0         300.0         -527.0         -82.0         -30.7         -117.8         -177.0         -275.2         -388.7           Cash and cash equivalents at beginning of reporting peri         470.6         734.4         1,273.4         1,573.4         1,046.4         964.4         933.7         815.9         639.0         363.7	Effect of foreign exchange rate changes on cash an				17.0	6.0	4.6	4,6	4.6	4,6	4.6
Cash and cash equivalents at beginning of reporting peri 470.6 734.4 1,273.4 1,573.4 1,046.4 964.4 933.7 815.9 639.0 363.7		263.8	539.0	300.0							
							933.7				

Exhibit 15: Cashflow Statement

			Forecast Period							
FINANCIAL STATEMENTS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Balance Sheet Check	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
Supporting Schedules (in millions of €)										
Working Capital Schedule										
Accounts Receivable	383.3	446.0	501.0	529.0	530.0	855.5	878.4	911.5	909.8	941.
Inventory	8.3	29.0	39.0	42.0	48.0	45.9	39.3	39.3	39.2	39.
Accounts Payable	450.0	527.0	541.0	550.0	667.0	655.8	655.8	655.0	653.8	651.8
Net Working Capital (NWC)	-58.4	-52.0	-1.0	21.0	-89.0	245.7	261.9	295.8	295.2	328.4
Change in NWC	-58.4	6.4	51.0	22.0	-110.0	334.7	16.3	33.9	-0.5	33.1
Depreciation Schedule										
PPE Opening										
Plus Capex										
Less Depreciation										
PPE Closing	-	-		-						-
Debt & Interest Schedule										
Debt Opening										
Issuance (repayment)										
Debt Closing				-						
Interest Expense										

Exhibit 16: Forecasted Supporting Schedules

			His	torical Results	·	Forecast Period					
FINANCIAL STATEMENTS		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Balance Sheet Check		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
DCF Model											
Assumptions											
Tax Rate	33.0%										
WACC	2.6%										
Proportion of Equity	23.6%										
Proportion of Debt	76.4%										
Cost of equity	5.9%										
equity beta	1.1204										
risk free rate	-0.48%										
market risk premium	5.70%										
Cost of debt	2.40%										
Perpetural Growth Rate	0%	Since there is n	not a trend on ti	he increase of	revenues, we a	ssume no pero	etual growth rate				
Transaction Date	31/03/20						grown are				
Fiscal Year End	31/12/20										
Current share Price (in €)	7.05										
Shares Outstanding (in millions)	233										
,											
Discounted Cash Flow	Entry	2020	2021	2022	2023	2024	Exit	Т	erminal Value		
Date	31/03/20	31/12/20	31/12/21	31/12/22	31/12/23	31/12/24	31/12/24	T	V		4,916
Time Periods		0	1	2	3	4		E	V/EBITDA		6.7x
Year Fraction		0.75	1.00	1.00	1.00	1.00		P	/E ratio		3.99
EBIT		788.5	776.3	777.1	738.9	745.5					
Less: Cash Taxes		260.2	248.4	264.2	258.6	253.5					
Plus: D&A		235.0	210.0	200.0	190.0	170.0					
Less: Capex		250.0	300.0	350.0	400.0	500.0					
Less: Changes in NWC		334.7	16.3	33.9	-0.5	33.1					
Unlevered FCF		178.6	421.6	329.1	270.8	128.9					
(Entry)/Exit							4,915.9				
Net FCF		134.0	421.6	329.1	270.8	128.9	4,915.9				
			Market Value				Rate of Return				
Intrinsic Value									115%		
Enterprise Value	5,656	_	Market Cap		1,643		Target Price Upside		110/0		
Enterprise Value Plus: Cash	964		Plus: Debt		3,087		l arget Price Upside		110/0		
Enterprise Value Plus: Cash Less: Debt	964 3,087		Plus: Debt Less: Cash	_	3,087 964		Target Price Upside		110/6		
Enterprise Value Plus: Cash	964		Plus: Debt	_	3,087		Target Price Upside		110%		

Exhibit 17: DCF Valuation

				Histo	rical Results			Forecast Period					
FINANCIAL STATEMENTS			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Balance Sheet Check			OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	
Charts and Graphs	;												
	2018	2021	2022	2023	2024		Market Value vs Intrinsic Value						
Free Cash Flow	134	422	329	271	129		Ma	arket Value		7.05			
							Up	side		8.12			
							Inf	rinsic Value		15.17			



Exhibit 18: Free Cashflows