EDISON

Claranova

FY19 results

Raising growth targets

Software & comp services

Claranova's FY19 results confirmed strong organic revenue growth and margin expansion boosted by the inclusion of the high-growth, high-margin internet acquisitions. The recent acquisition of Personal Creations in the US opens up a new addressable market for the Mobile business and has prompted the company to raise its four-year revenue target. The company is well funded to continue to invest in the business, whether internally or via acquisition.

Year end	Revenue (€m)	EBITDA (€m)	PBT* (€m)	Diluted EPS* (€)	DPS (€)	P/E (x)
06/18	161.5	3.9	3.1	0.06	0.0	109.8
06/19	262.3	16.0	12.0	0.25	0.0	28.1
06/20e	411.1	28.8	25.2	0.33	0.0	20.8
06/21e	488.8	36.4	32.8	0.48	0.0	14.5

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

FY19 results reflect successful Internet acquisitions

Claranova reported 62% revenue growth and 310% EBITDA growth in FY19. Excluding the high-margin businesses acquired by the Internet division at the start of FY19, organic growth was 33% for revenues and 72% for EBITDA. The strong performance of the Internet business resulted in an upward revaluation of the minority interest in that division and a one-off non-cash financial charge of €44.6m. The group generated positive cash flow from operations and reported a net cash position of €23.6m at the end of FY19.

Raising the four-year growth target

Management has revised up its four-year revenue target, aiming for revenues of €700m by FY23 (up from €600m) and maintaining its target EBITDA margin of 10% by that date. We have revised our forecasts to reflect the IoT cost base and the minority interest in the Internet business. We introduce FY21 estimates for revenue growth of 19% at an EBITDA margin of 7.4%, resulting in EPS growth of 44%.

Valuation: Sum-of-the-parts suggests upside

Reflecting the different business models and minority interests for each division, we continue to use a sum-of-the-parts approach to valuation. Based purely on peer group averages per division, we calculate a fair value of €14.08 per share. However, once multiples are adjusted to reflect our views on the growth and profitability of each division, we calculate a more realistic valuation of €13.74 per share (up from €13.41). Factors that could provide upside to our forecasts include faster-than-expected growth of the Internet business (which, in turn, is likely to lead to better profitability), returning Personal Creations to profitability, launch of the PayAware solution and distributors selling myDevices in the US and China.

8 October 2019

Price	**€6.93**
Market cap	**€272m**
	$1.1/€
Net cash (€m) at end FY19	23.6
Shares in issue	39.2m
Free float	91.3%
Code	CLA
Primary exchange	Euronext Paris
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	(8.5)	(14.0)	(27.7)
Rel (local)	(7.1)	(12.9)	(28.7)
52-week high/low		€9.28	€5.20

Business description

Claranova consists of three businesses focused on mobile and internet technologies: Mobile (digital photo printing), Internet (consumer software) and IoT (internet of things). Its headquarters are in Paris, and it has operations in Europe, the US and Canada.

Next events

Q120 revenues	6 November 2019

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Claranova is a research client of Edison Investment Research Limited

Investment summary

Bringing innovative products to the mass market

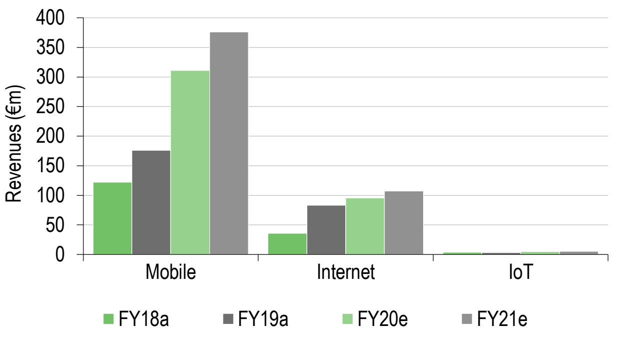
Claranova has been through a long period of restructuring and now comprises three distinct businesses taking advantage of high-growth areas of internet and mobile technology: digital photo printing (Mobile), consumer software (Internet) and internet of things (IoT). Key investment considerations are as follows:

- The Mobile and Internet divisions are on track to show material revenue and profit growth, with further upside potential from targeted acquisitions.
- The Mobile business has an asset-light business model, with all printing outsourced. This gives it significant flexibility to try out new products and new geographical markets without having to make large upfront investments.
- FreePrints is a market leader in the US and the UK.
- The acquisition of the group of Canadian businesses by the Internet division has given access to new methods of distributing and monetising consumer software, reflecting the shift in consumer attitude towards free or freemium products.
- The IoT business has secured contracts with mobile network operators and large distributors with a presence in the US and China, which should bring its IoT platform to a wide audience.
- The group is well funded with a net cash position of €23.6m at the end of FY19. Even after paying for recent acquisitions, we forecast net cash of €26m by the end of FY20 rising to €59m by the end of FY21. This should provide funds to support internal investment in growth and/or targeted acquisitions in the Mobile and Internet divisions.

Financials and valuation

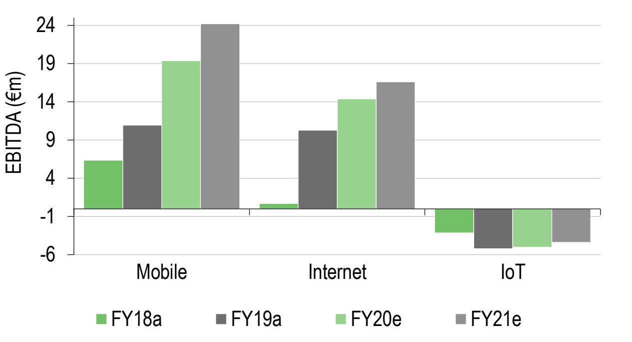
We forecast 57% group revenue growth for FY20 (26% organic) and 19% for FY21. We forecast group EBITDA of €28.8m for FY20 (7.0% margin), rising to a 7.4% margin in FY21e. With limited capex requirements, this translates to normalised operating margins of 6.9% in FY20e and 7.3% in FY21e, and EPS growth (on a normalised basis) of 35% in FY20e and 44% in FY21e.

Exhibit 1: Divisional revenues (€m), FY18–21e



Source: Claranova, Edison Investment Research

Exhibit 2: Divisional EBITDA (€m), FY18–21e



Source: Claranova, Edison Investment Research

Taking into account the differing growth trajectories and profitability of each division, as well as the different levels of minority investment in each, we use a sum-of-the-parts approach to valuation and estimate a fair value of €13.74 per share.

Factors influencing growth and profitability

In addition to the usual competitive pressures and the requirement to keep abreast of technology, our forecasts and the share price are sensitive to the pace and success of geographic expansion for the Mobile business, supplier dependence for FreePrints' printing service, changes to search engine policies for the Internet business, integration of acquisitions, and the US dollar/euro and sterling/euro exchange rates.

Company description: Online technology investor

Claranova is a group consisting of three businesses focused on mobile and internet technologies with high growth potential. After a long period of restructuring and refocusing the business, the group is demonstrating strong revenue growth and improving profitability.

Background

Claranova was originally founded in 1984 as a consumer software publisher called BVRP Software. In 1996, the company changed its name to Avanquest and listed on Euronext. From 2007 to 2012, it acquired multiple businesses. By 2013, growth had slowed and the company was loss-making – the decision was taken to restructure the business. The company raised €34.5m in equity in June 2015 through the issue of 345m shares at €0.10 per share. Also in FY15, it wrote off €10.7m of debt and converted €2.6m of debt to equity. As part of the restructuring, the company sold off a number of non-core businesses and restructured the remaining businesses into three divisions:

- **Mobile** – online and mobile photo printing (67% of FY19 revenues).
- **Internet** – online developer and retailer of consumer-focused software; internet traffic monetisation. It is the world's largest distributor of third-party software (32% of FY19 revenues).
- **Internet of things (IoT)** – platform to manage connected devices in the cloud (1% of FY19 revenues).

In 2017, Claranova organised each division into its own legal entity – this has enabled the company to seek out minority investors in each of the divisions in order to accelerate growth. At the same time, it changed the company name from Avanquest to Claranova. Reflecting its growth ambitions, the company has made acquisitions in the mobile and internet space over the last 18 months.

Group strategy: Monetise internet traffic and connected devices

The company is focused on driving the growth and profitability of each business. Earlier this year, the company unveiled its ambitious five-year growth plan, which is targeting group revenues growing from €162m in FY18 to €700m by FY23 and a group EBITDA margin of 10% by FY23. The original target was to achieve €600m in revenue by FY23, but management has now increased the target to reflect the recent acquisition of Personal Creations in the US.

The **Mobile** business is exploiting the popularity of photography on smartphones – its FreePrints business enables consumers to order prints of their photos directly from their smartphones in a simple and cheap fashion. It has shown rapid growth, particularly in the UK and the US, and recently launched the service in India and Benelux. Future growth is expected to come from offering its customer base a wider range of products, enhanced by the recent acquisition of online personalised gifts provider Personal Creations in the US. The target for this division is to reach revenues of €500m by FY23 with an EBITDA margin of 5.0–10.0%.

The **Internet** consumer software business has been streamlined, with nearly all distribution shifted online and unprofitable lines withdrawn. The acquisition of a group of Canadian businesses at the beginning of FY19 has given the division access to new monetisation tools to exploit the number of visitors to its websites. The target for this division is to achieve revenues of €200m by FY23 at an EBITDA margin of 15–20%.

Finally, the **myDevices** IoT platform is at an early stage of commercialisation. Widespread use of the free Cayenne prototyping tool by more than half a million developers is raising awareness of the platform. Recent contracts signed with mobile network operators demonstrate the first material commercial contracts for the platform and the division is seeing accelerating numbers of installations by end customers. As this division is still at the early stages of revenue generation, it has not been included in the five-year growth targets for the group.

Management

Claranova is headed up by Pierre Cesarini, CEO. Mr Cesarini joined the company in May 2013 to effect the restructuring of the group. He is supported by the management board: Sébastien Martin (CFO), Roger S Bloxberg (CEO PlanetArt, CEO Avanquest Software (North America)), Todd Helfstein (president PlanetArt, president Avanquest Software (North America)), Kevin Bromber (head of myDevices), Olivier Thirion (e-commerce business unit director for Avanquest) and Phil Schnyder (director of online business development for Avanquest). The group is overseen by a Supervisory Board made up of three members: Caroline Le Bigot, Luisa Munaretto and Jean Loup Rousseau.

Mobile: Digital personalisation services

Historically the Mobile business (called PlanetArt) has been focused on providing photo-printing services to consumers. With the acquisition of Personal Creations in August 2019, the business has widened its offering into the market for mass customisation of consumer products. The division aims to provide easy-to-use services with a focus on value for money.

Photo printing: From standard prints to customised products

Photo printing is offered via two businesses: FreePrints, which is focused on printing photos using apps on mobile devices, and Web-to-print, which hosts a number of websites that offer printing services. The two businesses share the same fulfilment infrastructure and marketing teams. The majority of the division's revenues are currently generated in the US and the UK, with a growing contribution from France, Germany, Ireland, Spain and Italy. The business launched the service in India, the Netherlands and Belgium during FY19.

FreePrints: Exploiting the shift in photography to phones

The first FreePrints app was launched in 2013 (called '**FreePrints**') and is available for use on Apple and Android mobile devices. This app allows customers to print photos that are saved on the mobile device or stored on popular websites such as Facebook, Instagram, Flickr and Dropbox. The offer varies by country. For example, in Europe, customers are offered 500 free prints per year, or 45 free prints per month, for which they pay postage only. In the UK, this works out at up to £4; in Europe, it costs up to €6. In the US, the offer is for 1,000 free prints per year, or 90 per month. The free prints offer is for prints of 6" × 4"/15cm × 10cm – if a customer wants larger prints, different shaped prints (eg square), borders, duplicates or different finishes, these are available for an additional charge. Once an order is placed, customers are then offered extra printing services, such as customised mugs, fridge magnets or T-shirts. Building on the success of the FreePrints app, additional apps have since been launched:

- In early 2016, the business launched the **FreePrints Photobooks** app, which offers a free 20-page softcover photobook every month, again for the cost of postage only (UK c £6, Europe €8). Upgrades are available for larger formats, more pages and for hardback covers.

- In FY19, PlanetArt launched the **FreePrints Photo Tiles** app. This enables customers to order one free PhotoTile (an 8"x8" canvas picture suitable to stick on the wall) per month, again for the cost of postage (£5.99 in the UK). This has so far been launched in the US, the UK, France, Germany, Italy, Ireland and Spain.
- This summer, the **FreePrints Cards** app was launched in the US and the UK. Customers can order one free greetings-style postcard per month and pay just 70p to cover delivery. They can upgrade to a standard card format with envelope for £1.99.

In total, FreePrints-branded apps have been downloaded more than 45m times to date. All of the apps charge for printing on a per-job basis with no subscription required. This business is not particularly seasonal. Overall, 70–85% of monthly revenues come from returning customers; the average order value is in the range €7–8.

First step into Asia with India launch

FreePrints launched in India in September 2018, initially just for photo prints but more recently also for photobooks. Some mobile photo printing apps already exist in India but have struggled with the delivery aspect of the service so have not received good reviews. Claranova is aiming to offer a better delivery service by contracting with a courier company for all deliveries (at a fixed cost), rather than using India Post, as well as using a network of printing companies to reduce the distance that prints have to be shipped. The business has taken a flexible approach to advertising the service, trying different methods to ascertain the most effective, and keeping the cost at modest levels while assessing the economics of the service.

Web-to-print: Most orders originate from mobile browsers

Web-to-print was the original photo-printing service that has been offered by the company since the acquisition of SimplytoImpress in 2010. The business operates through four dedicated websites and generates most of its business in the US.

- SimplytoImpress: high style cards and stationery products with text and photos
- PhotoAffections: wide variety of personalised photo products
- CanvasWorld: turns photos into canvas wall art
- MyCustomCase: personalised cases for mobile phones, tablets and other devices

Although called Web-to-print, the majority of orders come from mobile browsers (rather than mobile apps). The business is very seasonal, with a large volume peak in November-December covering Thanksgiving and Christmas. This business typically has a higher order value ($70–80) than the FreePrints business. Customers tend to order less frequently than for FreePrints, typically once a year.

Personal Creations opens up a new addressable market

At the end of June 2019, the company announced that it had made a bid to buy Personal Creations, the online gifts business of FTD Companies, Inc (FTD), for $18.1m in cash. FTD was trading under Chapter 11 at the time. The deal was approved on 31 July and the acquisition completed on 2 August. Personal Creations (PC) operates two websites in the US (www.personalcreations.com, www.gifts.com). It differs from the existing PlanetArt services in that it does not depend on customer photos for personalisation.

In CY17, PC generated revenues of $116m and in CY18 it was reported to have grown revenues by 9% to $126m. In CY18, EBITDA was slightly negative, after several profitable years. Claranova expects Personal Creations to generate positive EBITDA in the first year of ownership, albeit on potentially lower revenues, and sees synergies in terms of marketing and administrative costs. We would expect the management team to focus on integrating Personal Creations into PlanetArt and returning it to profitability before considering expansion beyond the US and would expect the company to consider developing a mobile app for Personal Creations.

Mobile printing market growing faster than web-based

Since the advent of the smartphone more than 10 years ago, consumers have increasingly shifted from taking photos using digital cameras to using their phones for the majority of their photography. This shift is only likely to continue as smartphone manufacturers constantly improve the camera technology on phones – the recently launched iPhone 11 Pro has three camera lenses to provide nearly equivalent functionality to a DSLR camera.

As people tend to have their phones on or close to them at all times, the number of photos taken has increased exponentially. InfoTrends estimates that 1.2 trillion photos were taken in 2017, up 9% compared to 2016, with c 90% taken with mobile devices (85% phones, 5% tablets). The majority of these sit on phones or photo-sharing services such as Instagram and Flickr and are never printed; in 2017 InfoTrends estimates that c 38bn photos were printed (only 3% of photos taken). Mobile apps for photo printing are designed to make the process simple and cheap. Alternatives include buying a home printer, which once specialist paper and ink is factored in, becomes an expensive option, using printing kiosks or uploading photos to web-based printing services.

In 2018, Future Market Insights estimated that the market for global photo printing and merchandise would be worth $16.9bn in 2018 and is likely to grow at a CAGR of 2.6% to reach $22bn by 2028. This masks the shift in distribution channels – in 2018 c 49% of the value is expected to be generated from online services, forecast to grow to 55% by 2028, which implies a CAGR of 3.9%. Within this category, we expect a continuing shift from web-based to mobile app-based printing.

The market for personalised gifts is a much larger than the photo printing market – according to data presented by the company, the personalised gift market is worth c $26bn and is growing at c 10% per annum.

A competitive market with a shifting landscape

FreePrints competes against large, multinational companies such as Snapfish, Photobox and CEWE, as well as local players such as Lalalab in France and Bob Books in the UK. **Web-to-print** competes against services from larger online players such as Shutterfly, Photobox and Vistaprint, as well as services offered by pharmacies and retailers such as Walmart, Walgreens, Boots and Tesco and by specialist photography companies such as Snappy Snaps and Jessops. The division has seen a slight reduction of competition in this market, as some smaller players have been acquired or left the market, however the recently announced Shutterfly/Snapfish merger is likely to alter the competitive landscape.

Exhibit 3 summarises the main competitors. We note that the Mobile business has no legacy film printing services and does not own any printing or retail facilities. This affords it the flexibility to enter new markets at lower cost and with less risk.

In June, private equity firm Apollo Global Management announced that it planned to acquire Shutterfly for an EV of $2.7bn. Shutterfly had been undergoing a strategic review so news that it was being acquired was not totally unexpected. Linked to this deal, Apollo announced it was also acquiring Snapfish and that it plans to merge the two businesses (the Snapfish acquisition is contingent on the completion of the Shutterfly acquisition) once the deals complete (target Q4). Snapfish is currently owned by District Photo, a large printing company that prints photos for its own brands (Snapfish and Truprint) as well as businesses such as Walgreens, Amazon and Tesco in the US and Europe. The price for this deal has not been disclosed, although press articles suggest a figure of $300m.

Shutterfly consists of three businesses, only one of which, Shutterfly Consumer, competes with Claranova's Mobile business in the US. The business offers both web-to-print and mobile printing of both photos and personalised products, with mobile-generated business making up 32% of Shutterfly-branded revenues in its last quarterly results. Snapfish is active in the US and the UK with a presence in France, Germany, Ireland, Italy, Australia and New Zealand. We understand that it has a higher mobile presence than Shutterfly. We would expect that the initial focus for the combined business will be to merge the two businesses operationally while servicing the debt put in place to make the acquisitions. In the short term, we do not expect Claranova's Mobile business to suffer from increased competition from the merged entity, although it is possible in the longer term.

Exhibit 3: Mobile and web printing competitors

	Ownership	HQ	Geographic split	Revenues	Volume processed	% mobile to print	Other services	Brands	Own print facilities
CEWE Photoworld	CEWE Stiftung & Co: Frankfurt-listed, market cap €590m	Germany	Europe (21 countries incl. UK), US	FY18: group €653m; photo-finishing €499m	FY18: 2.23bn photos, 6.2m photobooks	47% of photos printed from smartphone	Mugs, phone cases, tiles, calendars, cushions, magnets, canvas, photo books, posters	Photoworld Cheerz WhiteWall	Yes
Photobox	Exponent Private Equity, Electra Private Equity	UK	Europe (13 countries including the UK), Australia, New Zealand	£325m in FY17	2017: 27m deliveries; 12m active customers	N/A	Mugs, phone cases, cards, calendars, cushions, magnets, canvas, photo books	Moonpig.com posterXXL Hofmann Photobox Greetz	Yes
Shutterfly	Nasdaq-listed, market cap $1.75bn – being acquired by Apollo General Management	US	Strongly US weighted	FY18: group $2.0bn, consumer $1.0bn	FY18 consumer division: 9.8m customers, 24m orders, average order value $41; 15.7m app downloads	28% of revenues from mobile (Shutterfly brand)	Mugs, phone cases, cards, calendars, cushions, magnets, canvas, photo books	Shutterfly Tiny Prints boutique BorrowLenses Groovebook SBS Lifetouch	Yes
Snapfish	District Photo (privately owned) – being acquired by Apollo GM	US	US, Germany, France, Ireland, Italy, UK, US, Australia, NZ	N/A	90m users (2015)	N/A	Mugs, phone cases, calendars, cushions, magnets, canvas, photo books	Snapfish	Yes
Vistaprint	Cimpress: Nasdaq-listed, market cap $3.9bn	Netherlands	European/North American focus, with presence in South America and Asia-Pacific	$2.6bn in FY18 (of which Vistaprint was $1.5bn)		N/A	Business cards, posters, banners, leaflets, canvas	Vistaprint Druck.at pixartprinting Exaprint Easyflyer Drukwerkdeal printi YSD.com	Yes

Source: Claranova accounts, Edison Investment Research

Focus on customer service to maintain high ratings and rankings

PlanetArt aims to maintain its app store ratings at as close to 5/5 as possible as this is a key factor in consumers' decision-making when downloading apps. Currently, it is rated at 4.8/5 on both the Apple App Store and Google Play. This compares favourably to competitors who receive lower average review scores on significantly fewer reviews. We note that the Photobox app is not available on Android devices, only iOS. The business also aims to maintain high rankings within both app stores, as this also influences consumers' propensity to download. For example, in the UK today on Google Play, in the free photography apps category, FreePrints is ranked No. 1, FreePrints Cards No. 5 and FreePrints Photobooks No. 9. On the App Store in the UK, FreePrints ranks as the fourth most popular app in the Photography & Video category, after Instagram, YouTube and Snapchat, – so is in fact the top ranked photo printing app.

Business model

Sales strategy and customer retention

The division targets revenue growth from a combination of growing the customer base and encouraging the existing customer base to order more frequently and buy a wider range of products. The recent acquisition of Personal Creations brings a whole new range of products that could be sold into FreePrints, and vice versa.

Advertising costs are almost completely variable, with spend being dialled up or down depending on the cost of advertising at any given time, and the availability of cash. The division's experience is that this has a direct relationship with the number of new users acquired.

To win new customers, the division focuses its advertising on Facebook, where it can use micro-targeting, as well as on Twitter and Pandora (internet radio). Occasionally, the company buys TV advertising. To retain and encourage existing customers to spend, the business sends app notifications and emails with special offers and runs a loyalty programme. It also has a 'refer a friend' scheme. The business makes use of the FreePrints customer base to sell the Photobooks, Photo Tiles and Cards services.

The cost to acquire a FreePrints customer is low- to mid-single-digit euros, which, with a typical order value of €7–8, is covered in roughly nine months. Web-to-print undertakes limited advertising, focusing more on encouraging its existing customer base to place orders. The cost to acquire a new Web-to-print customer is around 10 times that of a FreePrints customer, but due to the higher average order value and higher gross margin, the payback is almost immediate.

Logistics: Outsourced printing

The division outsources all printing to one printer in the US and one in the UK. In India, it has set up a network of several printers to ensure national coverage. As the mobile app service is less seasonal, it is able to provide good volumes through the year, not just at Christmas time. During the Christmas peak, it can push delivery out from five to 10 days to ensure stable pricing. The business typically prints on average 50m photos per month. The company has built the IT systems to manage high volumes and if a new country is added, the system can manage localisation.

Minority investment to fund growth

In September 2017, a group of investors including Cap Investissement, the family office of Groupe Riccobono (a French industrial printer), invested €11.4m in PlanetArt in return for a 7.1% stake. An additional €0.8m was invested in April 2018, for a total minority investment of 7.7%.

Mobile Financials: Marketing drives strong growth

When this business was launched, the aim was to reach critical mass without burning significant amounts of cash. It has grown rapidly since launch and moved into EBITDA profitability in FY18. The target now is to generate revenues of €500m by FY23 at an EBITDA margin of 5.0–10.0%. This implies a CAGR for revenues of 29.8% from FY19 to FY23. Once the addition of Personal Creations is taken into account from FY20, we estimate a CAGR of 17.2% will be required to hit the target.

Cost of sales consists of printing costs (including the cost of items such as mugs or T-shirts), shipping costs and payment processing fees. FreePrints earns an estimated gross margin in the region of 35%, with the photo printing service earning an estimated 33–34% (we estimate 23–25% for basic photo printing, 60–65% for add-ons), and photobooks an estimated 40–45%. We estimate that Web-to-print generates gross margins of c 60–65%.

Operating costs include variable costs such as marketing spend, and others that are more fixed in nature: support, marketing staff (staff in the US as well as several people in Paris to manage European marketing), developers, general admin and share of corporate costs (based on revenues). We note that the business hires temps to cover increased support demands during the seasonal peak of the web-to-print business in November and December, which results in higher staff costs in H1.

Exhibit 4: Mobile quarterly revenues, Q117–Q419

€m	Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418	Q119	Q219	Q319	Q419
Revenues	15.4	34.2	18.7	20.6	21	48.2	23.4	29.4	30.4	67.4	34.9	43.4
y-o-y growth	62.1%	53.4%	71.6%	50.4%	36.4%	40.9%	25.1%	42.7%	44.8%	39.8%	49.1%	47.6%

Source: Claranova

Exhibit 5: Mobile annual forecasts

€m	FY15	FY16	FY17	FY18	FY19	FY20e	FY21e
Revenues	32.9	56.4	88.9	122.0	176.1	310.7	376.2
y-o-y growth		71%	58%	37%	44%	76%	21%
EBITDA	(9.5)	(9.3)	(0.3)	6.4	10.9	19.4	24.2
EBITDA margin	-28.9%	-16.5%	-0.3%	5.2%	6.2%	6.2%	6.4%

Source: Claranova, Edison Investment Research

In FY19, divisional revenues grew 44% y-o-y, or 40% on a constant currency basis. The division achieved an EBITDA margin of 6.2% in FY19, up from 5.2% in FY18, despite a 67% increase in marketing spend over the year. In FY20, we factor in Personal Creations from the beginning of August. We forecast a moderation of growth in the original business in FY20e and FY21e. To reflect the lower profitability of Personal Creations, we forecast a flat EBITDA margin in FY20, rising to 6.4% in FY21 as synergies are realised.

Internet: Traffic monetisation

The Internet division includes Avanquest, an online software reselling business, and the three Canadian businesses acquired at the start of FY19 (Adaware, SodaPDF and Upclick). The division is focused on four key verticals (photo editing, pdf, security/privacy and financial services) and as well as selling software online, monetises the traffic that visits its online properties via advertising, commission and transaction-based fees.

A long history as an online software retailer

Claranova has been developing and selling consumer-focused software since the company was founded in the 1980s. It sells a mixture of third-party software and own-IP software. The division sells more than 500 products from 200–300 licensors; software is typically from less well-known brands and would not include household names such as Adobe, Microsoft or Norton. Software sold by this legacy business falls broadly within one of the four categories:

- operating tools, eg PC clean-up, anti-virus
- office tools, eg PDF-based software
- interior/exterior design, eg architecture software
- photo-related, imaging

The legacy business saw declining revenues in FY16–18, partly due to a process of weeding out unprofitable product lines. However, this was reversed in FY19, when it reported growth of 16% (14% constant currency).

Acquisition of Canadian businesses broadens offering

At the beginning of July 2018, Claranova acquired 50.1% of a group made up of three Canadian businesses: Adaware, Lulu Software and Upclick. The table below summarises the products offered by each business. All software IP is owned by the businesses.

Exhibit 6: Acquired businesses

	Adaware	Lulu Software	Upclick
Products	H20 (software installer tool), Web Companion (browser security tool), anti-virus software, ad-blocking software	Soda PDF publishing software: converts documents to PDF and vice versa	E-commerce software: platform providing sales funnel optimisation and monetisation for merchants of digital goods and software
Traffic	14m unique visitors per month	4m unique visitors per month	N/A
Transactions	13m downloads per month; 450m software products installed	20m software products installed	1.2m per annum
Customer base	13m	13m	N/A – sells on a B2B basis
CY17 revenues (est)	€10m	€10m	€10m

Source: Claranova, Edison Investment Research

Prior to acquisition, Avanquest already had a good working relationship with the group; it rebranded Soda PDF as Expert PDF and was using Upclick to process around half of its e-commerce transactions. As part of the Internet division, the acquired businesses have kept their existing business models and brands.

While the division has achieved some cost synergies from sharing of group infrastructure, the main focus is on maximising the opportunity from the combined customer base and internet traffic. The division has phased out the use of its proprietary e-commerce platform and shifted all e-commerce onto Upclick's platform.

The legacy business has always been good at monetising emails, with revenue generated per 1,000 emails at more than twice the industry average. It also has a decent level of web traffic but much of this is paid for. Management is making use of the acquired group's expertise in traffic generation as well as taking the opportunity to cross-sell to the combined customer base. 30% of FY19 revenues from the Internet segment is from the monetisation of traffic (c €25m), all as a result of the acquired businesses.

Business model

The division generates revenues in four different ways:

- **Paid-for products**. For the legacy business, most software is sold on a one-off licence basis. The business is moving some products to a subscription model, eg OneSafe PC Cleaner, where the customer is likely to need to use the software on an ongoing basis. Other products such as Architect 3D are more suited to a one-off purchase as they tend to be linked to one-off projects. Soda PDF was based on a one-off licence fee, but is now being converted to a subscription licence model.
- **Freemium products/services**. The legacy business offers a few freemium products, including Photo Editor by InPixio and InstaCards. Adaware offers its anti-virus software on a freemium basis; the paid version of the software is subscription-based.
- **Advertising/traffic-based**. Adaware's Web Companion tool is a browser add-in for secure browsing, ad-blocking and identifying phishing sites. As the software diverts browsers such as Firefox to search services provided by Google or Bing, Web Companion earns a revenue share based on the searches pushed to these search providers. Adaware's software installer tool is used by websites that offer software downloads. When a consumer decides to download software, they first download a small file onto their PC. Once clicked on, an executable file runs to fully download the software. In the process, the user is prompted to accept and install other complementary software products. If the user accepts any of these additional software products, Adaware will earn a commission from the third-party software provider.

- **Transaction-based.** Upclick sells its services on a business-to-business basis. Merchants sign up to use the platform on a per-transaction basis.

The company presents these four revenue-generation methods in a slightly different way (Exhibit 7), providing examples of how traffic to its sites can be monetised. Where originally Avanquest would only earn revenues in the first category (direct sales), it has developed multiple ways to earn revenues from internet traffic, particularly in light of consumers' increasing reluctance to pay directly for software or services. So where it would previously earn on average $1 from each visitor to its sites, it can now earn more like $2.63 per visitor. Bearing in mind the cost of acquiring this traffic, the business can now make more profit, or pay more to acquire additional traffic.

Exhibit 7: Traffic monetisation methods

	Direct sales	Indirect sales of products, services & advertising	Customer targeting	Renewals
Monetisation method	Convert 2% of visitors to buy own IP or third-party software with average value of $50	Convert free software customers to paid products; earn search fees from Adaware; earn referral fees for third-party software installation	$3.00 lifetime value (LTV) per email address	Re-target existing customers to renew or upgrade software products, or download free products
Revenue per visit	$1	$0.85	$0.15	$0.63

Source: Claranova

Product strategy

Third-party software

The business employs several specialists who manage software developer relationships on a daily basis, including the types of products, the geographies in which they are available and the level of discounts that can be offered. Developers often start by supplying one product for one geography, then if the product proves popular, extend the contract to incorporate more products or geographies. The software is tested before the business lists it for sale. It will stop selling a product if revenues are too low or if feedback indicates that the quality is not high enough. In FY19, 37% of Internet segment revenues came from the sale of third-party software, versus 80% in FY18 (growth of 7% y-o-y).

Own IP products

The legacy business used to have more in-house developers, but refocused many of them on PlanetArt to develop the photo-printing services. The division therefore has a number of legacy products and uses freelancers to keep them up-to-date.

The division has a number of niche products where it has looked at the most commonly used functionality of popular software such as Photoshop, and developed a simplified version so that a consumer can use the software without being an expert. InPixio is an example of this kind of software. Niche products are developed on an opportunistic basis.

One final category of software is where the business can see a need for certain functionality but does not want to develop it in-house. In this case, it will own the brand but license-in the software from a third party. Architect 3D is an example of this.

In FY19, the sale of own IP (proprietary) software made up 33% of Segment revenues compared to 20% in FY18 (growth of 283% y-o-y), due to the contribution of the software from the acquired businesses.

New secure payments service developed

The company announced that it has developed a new service for Adaware called **PayAware.** This is designed to provide a secure and private way to make purchases online. The user registers with PayAware and provides details of a debit or credit card. Using the PayAware browser, when a user wants to pay for an item online, they press the PayAware button. This provides a one-time use card number that auto-fills in the payment page. By providing the one-time use number, even if it is intercepted it cannot be used again for another transaction. The transaction will show up on the user's credit card statement as a PayAware transaction. Via a separate dashboard, the user can log in and view all transactions made in this way.

In terms of monetisation, the service is free to the user; PayAware acts as the card issuer and therefore earns the issuer fee from the merchant. The transactions use the traditional card networks so Visa/Mastercard continue to earn their transaction fees. The merchant does not see any difference in the process. This service is in beta test and will initially be launched in the US and Canada. The company is also considering white-labelling the service.

Distribution: Mostly web-based

The business only has limited retail activity in Germany and a larger presence in the US. As retailers in the US have shorter payment terms, this does not consume so much working capital for the business, and also helps when signing up some third-party software suppliers. The main channels through which it sells now are:

- the Avanquest and Micro Application websites,
- affiliates – either via a traditional distributor model, or paid on a revenue share of units sold, and
- sub-licensing.

The business sells across Europe and North America, where there is sufficient ability to pay for software. In those regions where the cost of software could be prohibitive (South America, India, Africa), the business is considering whether it is possible to monetise traffic instead.

Consolidating a fragmented market

The market for consumer software is made up of:

- solutions sold by well-known software companies such as Microsoft (Office suite), Adobe (Acrobat PDF, Photoshop) and Symantec (Norton anti-virus), which typically make the majority of their money from enterprise customers;
- a large number of very small independent software vendors, which often struggle to market their products; and
- a small number of larger companies specialising in online consumer software sales, typically leveraging their marketing expertise to reach a wide audience.

The Internet division falls into this last category, along with companies such as Avast, Kape and IronSource. Avast (LSE-listed, market cap £2.5bn) and Kape (AIM-listed, market cap £199m) both sell cyber-security and PC hygiene tools and have been actively buying software providers in the space. IronSource is a private Israeli company selling monetisation and distribution tools for software and app developers. Its InstallCore software download tool is one of the most widely used and operates a similar model to Adaware's H2O tool.

Growth strategy: Monetise internet traffic

The company views the division's key skill as marketing, rather than software development. Through the Canadian acquisitions, it now has access to a wider product range that generates revenues in several different ways. In addition, the acquired software products were developed in-house so earn a higher margin. Using the acquired businesses' expertise in generating and monetising web traffic, the division has already managed to return to organic growth. The business is keen to increase the level of recurring revenue, mainly through offering software on a subscription basis, and is already seeing the benefits of this shift: recurring revenues made up 35% of divisional revenues in FY19 compared to only 8% in FY18.

Management has suggested that it would like to move more in the direction of the type of business operated by IAC, a US-listed media and internet company that owns 150 brands, including Ask.com, Dotdash, Investopedia, Match, Tinder and Vimeo. IAC revenues arise from the traffic generated on its websites – either through subscription services (eg dating websites, Vimeo video services) or advertising. IAC's Applications division is most similar to Adaware's business – it provides browser extensions that enable users to run search queries directly from their browser tab, as well as mobile applications and device cleaner and security tools. In 2018, IAC generated $582m of revenues from its Applications division. In our view, consumers have become used to receiving online services for free (for example, Facebook or free anti-virus tools) and it is harder to persuade them to pay for software upfront. Monetising consumer software sales via advertising or by offering freemium services is the direction in which the industry is moving and the acquisition of the Canadian companies is helping the business address this market shift.

The division would also consider additional acquisitions, targeting profitable companies with high levels of web traffic.

Internet Financials: Acquisitions boost growth and profitability

Exhibit 8 shows the quarterly revenue progression over the past three years; this business sees a seasonal peak in Q2 (ie calendar Q4). The cost of products (ie royalties paid to third-party software providers) ranges from 10–30% of sales. Other costs of sales include bank fees, distribution costs for physical goods and server hosting (c 15%), resulting in a gross margin of 60–65%. Operating costs break down as advertising (c 20%), marketing (c 20%), administrative (c 10%) and R&D (c 3%). The division operates with single IT, marketing and finance teams.

In FY19, the Internet business reported revenue growth of 132%. Stripping out the businesses acquired in July 2018, the legacy business grew 16%, or 14% on a constant currency basis. We estimate that the acquired businesses grew at 38% compared to revenue generated in the year prior to acquisition. The FY19 EBITDA margin of 12.4% was significantly higher than the 2.0% reported in FY18, with the organic business generating a margin of 2.9% and the acquired businesses a margin of 21.9%.

The target for this business is to reach revenues of €200m at an EBITDA margin of 15–20% by FY23. This implies a CAGR for revenues of 24.6% from FY19 to FY23. The division is already close to reaching the lower end of the target margin range. Our forecasts reflect growth for the legacy business of 7% in FY20e and 5% in FY21e and growth of the combined acquired businesses at 24% in FY20 and 18% in FY21. We assume that this growth translates to EBITDA margin expansion over the forecast period to within the target range.

Exhibit 8: Internet quarterly revenues, Q117–Q419, €m

	Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418	Q119	Q219	Q319	Q419
Revenues	9.8	11.3	9.4	8	8.4	11.3	8.6	7.5	16.9	23.2	20.4	22.5
y-o-y growth	6.5%	(10.3%)	1.1%	(7.0%)	(14.3%)	0.0%	(8.5%)	(6.3%)	101.2%	105.3%	137.2%	200.0%

Source: Claranova

Exhibit 9: Internet divisional forecasts

€m	FY15	FY16	FY17	FY18	FY19	FY20e	FY21e
Revenues	40.4	39.7	38.5	35.8	83.0	95.7	107.0
y-o-y growth		-2%	-3%	-7%	132%	15%	12%
EBITDA	(1.4)	1.1	0.0	0.7	10.3	14.4	16.6
EBITDA margin	-3.5%	2.8%	0.0%	2.0%	12.4%	15.0%	15.5%

Source: Claranova, Edison Investment Research

myDevices: Simplifying IoT for SMEs

Claranova has developed a management platform for internet of things (IoT) applications. Its **IoT in a Box** turnkey solution is designed to enable businesses and consumers to remotely monitor assets.

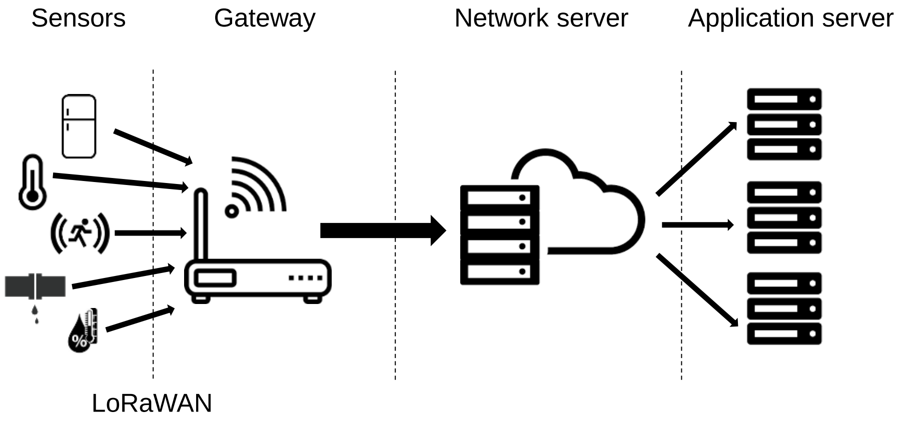
After developing the platform in 2015, the business decided to encourage use of the technology by launching a developer tool, **Cayenne**, in early 2016. Developers use the drag-and-drop IoT project builder to develop prototypes. Cayenne can be used on Raspberry Pi and Arduino boards and is designed to work on LoRaWAN.[1] The Cayenne developer tool has since been downloaded more than 500,000 times. myDevices also runs a manufacturer programme called **Cayenne IoT Ready**, which provides a process for hardware manufacturers to integrate their products into the Cayenne platform. Currently, the platform supports more than 400 different devices from 175 hardware manufacturers.

myDevices plans to monetise the platform by selling its **IoT in a Box** solutions on a B2B basis through telecom operators, system integrators and other resellers. The standard IoT in a Box solution contains the following:

- **Gateway:** this is the solution's link to the cellular/LoRa network or ethernet, to enable the customer to monitor the network remotely.
- **Sensors:** these are positioned as required on the customer's premises and send data back to the gateway on a regular basis. These communicate with the gateway using the LoRaWAN protocol.
- **Apps:** mobile or web-based to control the network, to monitor the network and to provide alerts as required.

The diagram below shows how a typical IoT network is structured.

Exhibit 10: IoT network



Source: Edison Investment Research

Designed for easy installation and use

The solution is designed to be plug-and-play. The user first downloads the myDevices app, then plugs in the gateway and scans a QR code on the gateway, which registers it on to the network. Then all sensors are scanned via QR code to add them to the network and positioned where necessary. Within the app, the user then edits operating ranges for each sensor, so that SMS and/or email alerts can be sent if any sensor operates outside of the target range. The user can

1 LoRa is a low-power, long-range wireless protocol based on a licence-free frequency spectrum; LoRaWAN is a wide area network based on LoRa.

schedule regular reports and can access detailed sensor history via the app. The app also provides the ability to visualise the location of every sensor.

Customers can ask for the IoT in a Box solution to be customised, using the gateway and sensors of choice. myDevices works with a number of hardware suppliers to ensure a wide range of gateways and sensors are available to suit every requirement.

myDevices has already developed white-label solutions for temperature and humidity monitoring, property monitoring, air quality monitoring and rodent control, with multiple versions available for a variety of different users, eg restaurants, supermarkets, commercial buildings, holiday rentals, perishable food manufacturing and healthcare.

LoRa focus attracts investment

The LoRa radio frequency protocol was designed by chip-maker Semtech, which then founded the LoRa alliance in 2015. The LoRa alliance is dedicated to the standardisation of low-power, wide area networks and the global promotion of the LoRaWAN open standard. myDevices is a member of the LoRa alliance, alongside 500 other members including chip manufacturers, gateway and sensor manufacturers, software companies, system integrators and telecom companies. In January 2017, Semtech invested $3m in myDevices in return for a 13% stake, and invested a further $3m over the course of January and February this year.

Strong growth market; multiple platform providers

The IoT market is in a strong growth phase – IDC estimates that total spending on IoT hardware, software, services and connectivity was $646bn in 2018 and is likely to grow at a double-digit rate to exceed $1tn by 2022. A large proportion of the IoT market is dominated by enterprises spending on applications in the manufacturing, automotive, logistics, utilities and smart cities sectors. The consumer IoT market includes applications such as wearables (eg Fitbit, Apple Watch) and domestic automation (eg Nest temperature controls, Ring home security). myDevices is positioned somewhere between the two markets, with a focus on simplifying the use of IoT for SMEs.

Research from BCG forecasts incremental spending by companies on IoT of €250bn by 2020, over and above normal technology spending. Of this, it expects €15bn to be spent on IoT platforms. BCG's view is that a complete IoT platform should offer three capabilities:

- application management – in order to customise solutions,
- data aggregation and storage – to support actionable insights, and
- connectivity management – to automatically connect systems, networks and devices.

Unlike in some other markets, no one platform provider is dominant. In 2017, BCG counted more than 400 different IoT platform providers, of which c 50 offered all three capabilities. Providers of IoT platforms include large hardware and/or software vendors such as Bosch, Cisco, GE, IBM, Microsoft, PTC, SAP, Siemens and Software AG, as well as smaller IoT platform-focused companies such as Ayla Networks, EVRYTHNG, relayr, Telit Communications and thethings.IO. By focusing on the SME niche, where ease of use is the key selling point, myDevices should avoid competing against the larger platform providers that focus on supporting enterprises with complex IoT networks.

Business model

As this is effectively a start-up business, myDevices is taking a flexible approach to monetising its technology. It has signed two major contracts with mobile network operators (MNOs). MNOs are offering IoT applications to their SME and consumer subscribers, which are typically sold as add-on services on monthly contracts. This is an attractive market for MNOs, at it represents an additional use for their cellular networks and should improve customer retention. IoT in a Box is also available for resellers and distributors. Last month, the company announced that 250 customers had deployed myDevices IoT solutions over the previous six months.

Sprint: IoT factory launched

In January 2018, Claranova announced that Sprint (the fourth-largest MNO in the US, owned by SoftBank) had signed up to use the myDevices platform for its IoT offering, called Sprint IoT Factory; the IoT Factory launched in May.[2] Customers can buy off-the-shelf solutions or use the platform to develop their own solutions. myDevices is providing the technology and is responsible for managing the webstore/marketplace as well as managing the ecosystem, which includes taking care of deliveries of hardware, in return for a share of revenue. Sprint is responsible for sales and marketing, network provision, support and payment. Sprint is currently in the process of merging with T-Mobile, although the completion of the deal is currently being delayed by various regulatory investigations and lawsuits. It is not clear at this point what the merger would mean for the Sprint IoT Factory.

Dr Peng relationship provides entry into the Chinese market

In August 2017, myDevices signed a partnership agreement with Dr Peng, the fourth-largest Chinese MNO, to provide localisation and distribution of the Cayenne platform under licence in China. Dr Peng will manage the scheme and will pay royalties to myDevices. At the same time, Dr Peng took a minority stake in myDevices, investing $3.5m to obtain a 16% stake. In December 2017, myDevices announced that IoT in a Box and Cayenne had been launched in China, with customised solutions in Mandarin available under the Peng Devices brand.

Multiple partnerships created in FY19

Through the course of FY19, the company signed up the following partners:

- **Ingram Micro**: myDevices is collaborating with Ingram Micro (a global technology distributor with 200,000 resellers) and Sprint to offer a 30-day free trial period to qualified potential customers.
- **Alibaba Cloud:** myDevices will market and sell IoT in a Box through Alibaba Cloud's existing reseller distribution network;
- **ARM:** ARM and myDevices have agreed to combine IoT in a Box with ARM's Pelion IoT platform; and
- **Microsoft:** the partnership will enable users to on-board LoRaWAN devices to instantly send data to Microsoft Azure, enabling advanced analytics and business intelligence.

IoT: Financials

Exhibit 11 shows the quarterly revenue progression over the past three years. The division is still generating some revenues from legacy solutions; this should decline to zero over the next two to three years. As customers pay to use myDevices on a per device subscription basis, revenues are building up slowly, but as customers become familiar with the platform, the expectation is that they will decide to use the service for more devices in more locations. Customers to date include hotels, hospitals, restaurants, catering businesses, colleges and sports clubs.

Headcount includes support engineers as well as staff to manage the relationships with MNOs and distributors. The company does not anticipate growing headcount materially unless there is a significant uplift in demand. The division uses Amazon Web Services for storage of all data uploaded to the platform. We model a small increase in the cost base over the forecast period, with

2 See link here: https://business.sprint.com/iot-factory/.

rising revenues as the Sprint relationship progresses and distributor partners start to win customers.

Exhibit 11: IoT quarterly revenues, Q117–Q419, €m

	Q117	Q217	Q317	Q417	Q118	Q218	Q318	Q418	Q119	Q219	Q319	Q419
Revenues	0.7	0.6	0.7	0.8	0.6	0.4	1.2	1.5	0.9	0.8	0.9	0.6
y-o-y growth	(12.5%)	(50.0%)	(12.5%)	(11.1%)	(14.3%)	(33.3%)	71.4%	87.5%	50.0%	100.0%	(25.0%)	(60.0%)

Source: Claranova

Exhibit 12: IoT annual forecasts

€m	FY17	FY18	FY19	FY20e	FY21e
Revenues	2.8	3.7	3.2	4.6	5.6
y-o-y growth	-24%	32%	-14%	44%	22%
EBITDA	(4.7)	(3.1)	(5.2)	(5.0)	(4.4)
EBITDA margin	-167.9%	-84.9%	-163.1%	-108.7%	-78.6%

Source: Claranova, Edison Investment Research

Sensitivities

In addition to the usual competitive pressures and the requirement to keep abreast of technology, our forecasts and the share price are sensitive to the following factors:

- **FreePrints geographical expansion**: FreePrints recently launched in India and may expand into other new countries. The pace of customer adoption in these new geographies is unknown.
- **Mobile supplier dependence**: in Europe and the US, the Mobile business relies on one printing supplier. Any issues with this relationship could affect the profitability of the business.
- **Acquisition risk:** the recent acquisitions of the Canadian businesses by the Internet division and Personal Creations by the Mobile business introduce integration risk.
- **Changes to search engine policies**: several products within the Internet business rely on search engines to generate revenues. Changes to these search engines' policies could reduce the ability to earn revenues.
- **Currency:** Claranova's revenue is exposed to currency translation movements, as a large proportion is generated in US dollars, and to a lesser extent sterling. Across the three divisions, there is a high level of natural hedging, with the majority of costs incurred in the country in which revenues are generated. In FY19, the strengthening of the dollar versus the euro increased revenues by €5.5m but EBITDA by only €0.2m.

Financials

Review of FY19 results

Claranova reported FY19 revenues in August (see Boosting organic growth with US acquisition). FY19 EBITDA of €16.0m was 310% higher than a year ago and 12.7% ahead of our forecast, resulting in an EBITDA margin of 6.1% (vs 2.4% in FY18). EBITDA came in above our forecasts for Mobile and Internet (both 16% ahead) whereas the IoT division incurred higher costs than forecast resulting in an EBITDA loss €1m larger than expected. Depreciation and amortisation (excluding amortisation of acquired intangibles) was minimal, resulting in normalised EBIT of €15.5m and an EBIT margin of 5.9% (vs 2.1% in FY18). Net cash at the end of FY19 was higher than we forecast, as most of the deferred consideration for the Canadian acquisitions was paid in early July rather than the end of June. The company generated €7.3m cash from operations, with €14.8m generated prior to working capital requirements. As much of the group's business is consumer focused, Claranova tends to receive cash from customers before paying suppliers. However, with the addition of the new businesses in the Internet division, more activity is business-to-business and therefore consumes more working capital.

Exhibit 13: FY19 results highlights

	FY19e	FY19a	Change	y-o-y
Revenues	262.3	262.3	0.0%	62.4%
EBITDA	14.2	16.0	12.7%	310.3%
EBITDA margin	5.4%	6.1%	0.7%	3.7%
Normalised operating profit	13.6	15.5	14.0%	355.9%
Normalised operating profit margin	5.2%	5.9%	0.7%	3.8%
Reported operating profit	8.5	11.4	34.1%	N/A
Reported operating margin	3.2%	4.3%	1.1%	8.1%
Normalised PBT	10.9	12.0	9.7%	287.1%
Reported PBT	5.8	(37.7)	(745.6%)	N/A
Normalised net income	9.0	9.8	8.9%	274.6%
Reported net income	5.1	(40.8)	(898.5%)	N/A
Normalised basic EPS (€)	0.23	0.25	8.9%	275.9%
Normalised diluted EPS (€)	0.23	0.25	7.5%	290.8%
Reported basic EPS (€)	0.13	(1.04)	(898.2%)	N/A
Net debt/(cash)	(16.2)	(23.6)	45.4%	(37.1%)

Source: Claranova, Edison Investment Research

Account for the acquisition of the Canadian Internet businesses

The Internet division acquired 50.01% of a group of Canadian businesses on 1 July 2018. The total consideration for the deal was €68.5m. This consisted of initial cash consideration of €9.9m, deferred cash consideration of €18.6m (€4.1m paid in June 2019, €14.5m paid in July 2019) and the issue of preference shares to the vendors for the remaining 49.99% of the businesses. The preference shares are convertible into shares of Avanquest Software SAS (the parent company of the Internet division) at a variable conversion ratio dependent on certain performance conditions. Under IFRS 9/IAS 32, the preference shares were classed as a hybrid financial instrument and were accounted for as a debt instrument, valued at €41.0m at the date of acquisition. The valuation of the Internet business, on which the conversion ratio for the preference shares depends, was deemed to have increased from $87m at the start of FY19 to $162m by the end of FY19. The increase in value of €44.6m has been reported as an exceptional financing item. As the necessary performance criteria have been met, the conversion ratio is now fixed and the debt instrument reclassified in equity as at the end of the year. Going forward, there will be a minority interest deduction in the income statement.

Other related exceptional items include €1.1m unwind of the discounted deferred cash consideration (included in financing costs) and the deemed €2.9m value of preference shares issued to the financial intermediary who arranged the deal (included in as an exceptional item at the operating profit level).

Changes to forecasts

We have revised our forecasts to reflect a slightly more conservative growth rate in the Mobile business, the higher cost base in the IoT division and the minority interest deduction for the Internet business. Net financial costs take into account the convertible bond (ORNANE) issued in June 2018 (€29m at an annual interest rate of 5%) and the bonds issued in June 2019 (€19.7m at an annual interest rate of 6%). We have assumed a 23% rate for tax for FY20 and FY21, as the bulk of profits are likely to come from the US and the UK with corporate tax rates of 21% and 19%, respectively. We understand that the company has unused tax losses in France, Germany and the US, which could reduce the amount of tax paid over the next few years.

Exhibit 14: Changes to forecasts

€m	FY20e Old	FY20e New	Change	y-o-y	FY21e New	y-o-y
Revenues	425.8	411.1	(3.5%)	56.7%	488.8	18.9%
EBITDA	30.0	28.8	(4.0%)	80.0%	36.4	26.4%
EBITDA margin	7.0%	7.0%	(0.6%)	0.9%	7.4%	0.4%
Normalised operating profit	29.5	28.3	(4.1%)	82.6%	35.9	26.9%
Normalised operating profit margin	6.9%	6.9%	(0.0%)	1.0%	7.3%	0.5%
Reported operating profit	27.3	24.8	(9.2%)	117.5%	32.4	30.6%
Reported operating margin	6.4%	6.0%	(0.4%)	1.7%	6.6%	0.6%
Normalised PBT	26.4	25.2	(4.5%)	109.8%	32.8	30.2%
Reported PBT	24.2	21.7	(10.3%)	(157.5%)	29.3	35.1%
Normalised net income	20.1	13.3	(33.8%)	35.0%	19.1	43.8%
Reported net income	18.4	10.6	(42.3%)	(126.0%)	15.7	48.1%
Normalised basic EPS (€)	0.51	0.34	(33.8%)	35.0%	0.49	43.8%
Normalised diluted EPS (€)	0.51	0.33	(34.6%)	35.0%	0.48	43.8%
Reported basic EPS (€)	0.47	0.27	(42.3%)	(126.0%)	0.40	48.1%
Net debt/(cash)	(28.7)	(26.1)	(9.2%)	10.5%	(58.7)	125.2%

Source: Edison Investment Research

Valuation

In Exhibit 15, we show Claranova's valuation and operating metrics versus four peer groups: photo printing companies, online software retailers, IoT companies and French software companies. As Claranova is a combination of the first three groups and there are material minority investors in each business, we use a sum-of-the-parts approach to fully capture the value of the group.

Exhibit 15: Peer group financial and valuation metrics

	Quoted ccy	Market cap (m)	Rev growth CY (%)	Rev growth NY (%)	EBITDA margin CY (%)	EBITDA margin NY (%)	EBIT margin CY (%)	EBIT margin NY (%)	EV/ Revs CY	EV/ Revs NY	EV/ EBITDA CY	EV/ EBITDA NY	P/E CY	P/E NY
Claranova	**€**	**272**	**56.7**	**18.9**	**7.0**	**7.4**	**6.0**	**6.6**	**0.7**	**0.6**	**9.7**	**7.7**	**20.8**	**14.5**
Digital printing														
Mobile business	***€***		***76.5***	***21.1***	***6.2***	***6.4***								
CEWE Stiftung	€	600	5.6	4.5	14.8	14.9	8.2	8.4	1.0	1.0	7.0	6.6	15.2	14.2
Cimpress	US$	3556	3.6	4.9	15.1	15.7	8.1	8.6	1.7	1.6	11.0	10.2	37.2	28.7
Average			**4.6**	**4.7**	**15.0**	**15.3**	**8.2**	**8.5**	**1.4**	**1.3**	**9.0**	**8.4**	**26.2**	**21.4**
Software publisher/reseller														
Internet business	***€***		***15.3***	***11.8***	***15.0***	***15.5***								
Avast	GBp	3630	7.8	6.5	55.3	55.3	50.3	51.3	6.4	6.0	11.6	10.9	14.9	13.6
IAC	US$	18638	12.2	14.7	21.6	24.2	12.9	16.1	4.1	3.5	18.8	14.6	48.6	36.6
Kape Technologies	GBp	112	37.4	16.8	19.5	22.5	16.0	19.3	1.5	1.2	7.4	5.5	13.1	10.3
Average			**19.1**	**12.7**	**32.2**	**34.0**	**26.4**	**28.9**	**4.0**	**3.6**	**12.6**	**10.3**	**25.6**	**20.2**
IoT														
myDevices	***€***		***43.8***	***21.7***	***(108.7)***	***(78.6)***								
Calamp Corp	US$	335	3.1	4.9	12.4	14.4	6.5	8.7	1.2	1.1	9.3	7.6	14.9	11.2
Digi International	US$	380	10.0	8.0	10.3	12.6	3.8	5.6	1.2	1.1	11.4	8.6	41.1	28.6
Sierra Wireless	US$	507	(5.1)	11.0	4.5	6.2	2.0	4.0	0.4	0.4	8.7	5.8	32.7	13.6
Telit Communications	GBp	212	(13.4)	10.0	10.0	10.2	2.2	3.2	0.6	0.6	6.1	5.4	39.5	21.9
Average			**(1.4)**	**8.5**	**9.3**	**10.9**	**3.6**	**5.4**	**0.8**	**0.8**	**8.9**	**6.9**	**32.1**	**18.8**
French software														
Axway Software	€	218	0.5	1.1	9.8	12.5	6.5	9.2	0.9	0.9	9.3	7.2	14.9	10.8
Cegedim	€	356	6.3	4.2	16.6	17.2	6.1	8.1	1.2	1.1	7.1	6.6	20.2	10.9
ESI Group	€	183	1.5	7.8	9.2	10.7	6.3	7.6	1.5	1.4	16.3	12.9	42.5	30.9
Esker	€	442	16.1	15.9	21.5	22.1	13.9	14.6	4.3	3.7	19.8	16.6	41.3	34.0
Lectra	€	565	(1.0)	5.1	17.3	17.7	12.8	13.5	1.7	1.6	9.9	9.2	20.6	18.7
Linedata Services	€	211	(1.5)	2.5	25.3	25.3	16.5	16.0	1.7	1.7	6.7	6.5	10.9	10.8
Prodware	€	47	1.3	1.4	19.7	20.0	11.3	11.7	0.7	0.7	3.5	3.4	3.5	3.4
Average			**3.3**	**5.4**	**17.1**	**17.9**	**10.5**	**11.5**	**1.7**	**1.6**	**10.4**	**8.9**	**22.0**	**17.1**

Source: Edison Investment Research, Bloomberg (as at 7 October 2019). Note: We assume Claranova CY is FY20e; averages exclude Claranova divisions.

Based solely on average peer group EV/sales multiples for FY20e (1.4x for Mobile (this excludes Shutterfly acquired at a valuation of 1.2x forward sales), 4.0x for Internet and 0.8x for IoT), we arrive at a sum-of-the-parts valuation for Claranova of €14.08 per share. However, we believe that these multiples are not reflective of the growth and profitability prospects for each division. In Exhibit 16, our sum-of-the-parts valuation is based on adjusted FY20e EV/sales multiples by division, as discussed in more detail below. The EV/sales multiple for FY21e and the EV/EBITDA multiples for FY20e and FY21e are implied based on the EV/sales multiple used for FY20e.

Exhibit 16: Claranova sum-of-the-parts valuation

	FY20e	FY21e	EV based on FY20e sales multiple (€m)	MI	Value to shareholders (€m)
EV/Sales multiple	1.7	1.4	707.0		545.6
Mobile	**1.6**	1.3	497.2	8.0%	457.4
Internet	**2.0**	1.8	191.4	59.9%	76.8
IoT	**4.0**	3.3	18.4	37.7%	11.5
Implied EV/EBITDA multiple					
Mobile	25.6	20.5			
Internet	13.3	11.5			
IoT	N/A	N/A			
	€m				Upside/(downside)
Net cash at end FY19	23.6		Equity value (€m)	538.6	
Cost of acquisitions	(30.7)		**Per share value (€)**	**13.74**	98%
Adjusted net debt	(7.1)				
No. shares (m)	39.2				

Source: Edison Investment Research

We have used an EV/sales multiple for **Mobile** at a small premium to its peer group. We previously used a higher premium reflecting the strong organic growth of this division. However, as our FY20 revenue forecast incorporates c $90m in revenue from Personal Creations, which is likely to be at close to break-even, we believe it is appropriate to use a lower multiple to reflect the impact on profitability. This results in an implied EV/EBITDA multiple at a premium to peers, reflecting the Mobile business's lower EBITDA margins. As the photo printing business has a fully outsourced production model, it has minimal depreciation and amortisation, and we would expect its EBIT margin to be very close to its EBITDA margin. On this basis, we estimate that the division's profitability is much closer to that of its peers.

We have used a multiple for **Internet** that is at a large discount to its peers (and to the transactions in Exhibit 17). Looking at revenue growth in FY20, the business is likely to grow at a slightly slower rate than its peers. In addition, it is generating substantially lower profitability than its peers on an EBITDA and EBIT margin basis. We note that the Canadian group of businesses was acquired at a trailing price/sales multiple of c 1.8x.

For **IoT**, we have used an EV/sales multiple for FY20 that is at a premium to its listed peer group. We note that the number of pure-play listed peers for this market is low, and their forecast growth is substantially lower than for myDevices. We therefore think it is more appropriate to apply a multiple based on recent transactions (see Exhibit 17), which show that IoT platforms command price/sales multiples anywhere between 4.2–8.9x sales.

Clearly, if the company does not achieve our forecasts, there could be downside to the share price. Factors that could provide upside to the valuation include faster-than-expected growth of the Internet business (which, in turn, is likely to lead to better profitability), returning Personal Creations to profitability, launch of the PayAware solution and distributors selling myDevices in the US and China.

Recent transactions

In the table below, we summarise recent transactions in each of the three markets. In both the IoT and consumer software markets, the range of multiples is very wide, reflecting the differing growth rates of the acquired businesses. We note also that definitive information regarding historical and forecast growth is not available for most of these transactions.

Exhibit 17: Recent M&A transactions

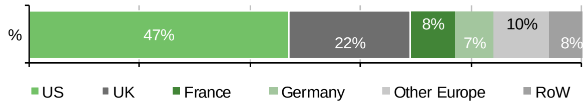
Date	Acquirer	Target	Deal value	Financials	Valuation	Details of business
IoT						
Sep -18	Munich Re	Relayr	€241m	CY18 revs €2.2m, loss €21.7m	Price/sales 110x	IoT middleware platform
Jun-18	ARM	Stream Technologies	N/A	N/A	N/A	IoT-X connectivity platform
Jun-18	Montagu Private Equity	Wireless Logic	£400m	Revs £45m (year to April 2017)	Price/sales 8.9x	IoT platform; 2,500 customers, 3.1m subscriptions
Feb-18	Amazon	Ring	$900m	CY17 revs $415m (+144% y-o-y)	Price/sales 2.2x	Smart home security
Feb-18	Google	Xively	$50m	Q417 revs $3m	Price/sales 4.2x	IoT platform
Feb-14	Google	Nest	$3.2bn	Revs c $300m	Price/sales 10x	Smart home thermostat control; smoke and CO detectors
Consumer software publishers/retailers						
May-19	Avast	TrackOFF	$12.8m	N/A – loss-making	N/A	Tools to protect users' identities and personal lives
Jul-18	Kape	Intego	$16m	CY17 PBT $1.4m, $6m run rate revenues	Price/PBT 11.4x, Price/sales 2.7x	Anti-malware, firewall and parental control products for Mac; 150k subscribers
Jul-17	Avast	Piriform	$121m	CY17 revs $21.7m, EBITDA $8.6m	Price/sales 5.6x, Price/EBITDA 14.1x	CCleaner-– PC cleaner tool; 90m users
Mar-17	Kape	CyberGhost	$9.8m	CY16 EBITDA $1m	Price/EBITDA 9.8x	VPN solutions; 1.5m active users
Jul-16	Avast	AVG	$1.3bn	CY16 revs $419m, adj op. profit $132.6m	Price/sales 3.1x, price/op. profit 9.8x	Anti-virus software
Photo printing/personalised gifts						
Sep-19	Apollo General Management	Shutterfly	EV $2.7bn	FY19e revs $2.2bn, EBITDA $326m	EV/sales 1.2x, EV/EBITDA 8.3x	US digital photo printing
Target Q419	Apollo General Management	Snapfish	c $300m	N/A	Price/sales c 2x	US & European digital photo printing
Apr -19	CEWE	WhiteWall	€30m	FY18 sales c €33m	0.9x FY18 sales	European photo wall art printing
Aug - 18	Photobox	Greetz	N/A	N/A	N/A	European personalised greetings cards
Mar-18	CEWE	Cheerz	€36m for 80%	FY18e revs c €30m	Price/sales 1.5x	European digital photo printing
Oct-15	Exponent Private Equity, Electra Private Equity	Photobox	£400m	FY15 PF revs £275m	Price/sales 1.5x, c 10x EBITDA	European digital photo printing

Source: Edison Investment Research, company websites, Refinitiv

Exhibit 18: Financial summary

€m	2015	2016	2017	2018	2019	2020e	2021e
30-June	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
INCOME STATEMENT							
Revenue	93.1	117.4	130.2	161.5	262.3	411.1	488.8
EBITDA	(6.8)	(9.2)	(5.0)	3.9	16.0	28.8	36.4
Normalised operating profit	(11.4)	(16.0)	(5.8)	3.4	15.5	28.3	35.9
Amortisation of acquired intangibles	0.0	0.0	0.0	0.0	(1.5)	(1.5)	(1.5)
Exceptionals	15.6	(10.0)	0.4	(2.4)	(2.9)	0.0	0.0
Share-based payments	(0.0)	(0.1)	(4.8)	(7.1)	0.3	(2.0)	(2.0)
Reported operating profit	4.2	(26.1)	(10.1)	(6.1)	11.4	24.8	32.4
Net Interest	1.1	(1.7)	(0.9)	(0.3)	(3.5)	(3.1)	(3.1)
Joint ventures & associates (post tax)	0.0	(0.0)	0.0	0.0	0.0	0.0	0.0
Exceptionals	0.0	0.0	0.0	0.0	(45.6)	0.0	0.0
Profit Before Tax (norm)	(10.3)	(17.7)	(6.6)	3.1	12.0	25.2	32.8
Profit Before Tax (reported)	5.3	(27.8)	(11.0)	(6.4)	(37.7)	21.7	29.3
Reported tax	(0.6)	(0.8)	(0.4)	(1.8)	(3.7)	(5.0)	(6.7)
Profit After Tax (norm)	(10.9)	(18.5)	(7.0)	2.4	9.2	19.4	26.0
Profit After Tax (reported)	4.7	(28.6)	(11.4)	(8.2)	(41.4)	16.7	22.5
Minority interests	(8.1)	0.0	0.3	0.2	0.6	(6.1)	(6.9)
Discontinued operations	(3.2)	0.0	0.0	0.0	0.0	0.0	0.0
Net income (normalised)	(18.9)	(18.5)	(6.7)	2.6	9.8	13.3	19.1
Net income (reported)	(6.5)	(28.6)	(11.0)	(7.9)	(40.8)	10.6	15.7
Basic average number of shares outstanding (m)	6	38	38	39	39	39	39
EPS - basic normalised (€)	(3.27)	(0.49)	(0.18)	0.07	0.25	0.34	0.49
EPS - diluted normalised (€)	(3.27)	(0.49)	(0.18)	0.06	0.25	0.33	0.48
EPS - basic reported (€)	(1.13)	(0.76)	(0.29)	(0.20)	(1.04)	0.27	0.40
Dividend (€)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Revenue growth (%)	#DIV/0!	26.1	10.9	24.0	62.4	56.7	18.9
EBITDA Margin (%)	-7.3	-7.9	-3.8	2.4	6.1	7.0	7.4
Normalised Operating Margin	-12.3	-13.7	-4.4	2.1	5.9	6.9	7.3
BALANCE SHEET							
Fixed Assets	15.7	3.0	2.0	1.3	75.1	89.8	88.3
Intangible Assets	12.0	1.5	0.9	0.5	69.9	84.5	82.9
Tangible Assets	0.6	0.5	0.3	0.2	1.4	1.5	1.6
Investments & other	3.1	1.1	0.7	0.6	3.8	3.8	3.8
Current Assets	48.0	25.5	28.1	79.1	100.9	112.7	150.2
Stocks	5.9	5.0	3.7	3.7	4.8	7.5	8.9
Debtors	4.8	4.7	4.3	4.9	11.6	18.2	21.6
Cash & cash equivalents	30.5	11.1	17.1	65.7	75.4	77.9	110.5
Other	6.9	4.7	2.9	4.8	9.1	9.1	9.1
Current Liabilities	(32.0)	(25.3)	(28.1)	(37.2)	(60.5)	(68.3)	(79.7)
Creditors	(26.9)	(24.5)	(26.6)	(35.4)	(54.8)	(62.6)	(74.0)
Tax and social security	(0.3)	(0.0)	(0.3)	(1.7)	(3.0)	(3.0)	(3.0)
Short term borrowings	(4.8)	(0.7)	(1.1)	(0.1)	(2.7)	(2.7)	(2.7)
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Long Term Liabilities	(2.4)	(1.1)	(0.7)	(29.0)	(52.0)	(52.0)	(52.0)
Long term borrowings	(1.8)	(0.6)	0.0	(28.1)	(49.1)	(49.1)	(49.1)
Other long term liabilities	(0.7)	(0.5)	(0.7)	(0.9)	(2.9)	(2.9)	(2.9)
Net Assets	29.3	2.1	1.3	14.2	63.6	82.2	106.8
Minority interests	0.0	0.0	(0.1)	(1.8)	(11.0)	(17.1)	(23.9)
Shareholders' equity	29.3	2.1	1.2	12.5	52.6	65.1	82.8
CASH FLOW							
Op Cash Flow before WC and tax	(6.8)	(9.2)	(5.0)	3.9	16.0	28.8	36.4
Working capital	0.4	2.5	6.8	7.9	(4.1)	12.9	6.6
Exceptional & other	(3.8)	(4.3)	(2.2)	(5.7)	(5.2)	0.0	0.0
Tax	0.3	(0.3)	(0.0)	(1.2)	(3.8)	(5.0)	(6.7)
Net operating cash flow	(9.8)	(11.3)	(0.4)	5.0	3.0	36.8	36.3
Capex	(4.4)	(0.9)	(0.2)	(0.1)	(2.5)	(0.5)	(0.5)
Acquisitions/disposals	10.8	(0.4)	3.6	14.2	(13.3)	(30.7)	0.0
Net interest	(0.9)	(0.1)	(0.0)	(0.3)	0.0	(3.1)	(3.1)
Equity financing	33.2	(5.1)	1.9	2.0	(1.4)	0.0	0.0
Dividends	0.0	2.0	0.0	0.0	0.0	0.0	0.0
Other	0.1	0.1	0.1	(0.6)	0.0	0.0	0.0
Net Cash Flow	29.0	(15.7)	5.0	20.1	(14.2)	2.5	32.7
Opening net debt/(cash)	18.0	(23.9)	(9.8)	(16.0)	(37.5)	(23.6)	(26.1)
FX	0.1	(0.1)	(0.6)	0.4	0.3	0.0	0.0
Other non-cash movements	12.6	1.7	1.8	1.1	0.0	0.0	0.0
Closing net debt/(cash)	(23.9)	(9.8)	(16.0)	(37.5)	(23.6)	(26.1)	(58.7)

Source: Claranova accounts, Edison Investment Research

Contact details	Revenue by geography
Immeuble Vision Défense – 89-91 Boulevard National La Garenne-Colombes CEDEX France https://claranova.com/investors/	

Management team	
CEO: Pierre Cesarini	**CFO: Sébastien Martin**
Prior to joining Avanquest as group CEO in May 2013, Mr Cesarini began his career at Apple's California headquarters, where he spent 10 years and played a key role in the development of the PowerMac. In 1998, he founded TempoSoft, a supplier of intranet applications for HR management and planning that was purchased by Oracle in 2005. In 2007, he became CEO of Atego, an embedded software provider.	A seasoned veteran in all key areas of corporate finance, Mr Martin holds an executive MBA from HEC and has 20 years' experience in fast-growing technology companies. He has headed up more than 20 notable operations from incorporation to acquisition to restructuring.
Chair of supervisory board: Caroline Le Bigot	**Vice-chair of supervisory board: Luisa Munaretto**
A graduate of Sciences Po Paris and an executive MBA at Stanford, Ms Bigot has decades of experience in high tech internationally. She is currently assisting large French, US and Israeli companies in their development. Her passion for high tech and user interface design, her knowledge of software and hardware environments, and her expertise in international businesses and complex projects have benefited the accelerated development of Claranova.	With decades of experience in private equity, Ms Munaretto is a co-founder of IndEU Capital, an investment fund that has specialised in luxury brands with a strong focus on digital branding and innovation. Her experience in private equity also includes numerous investments in France and Italy through her position of director of strategy at 21 Partners, an investment company of the Benetton family.

Principal shareholders	(%)
Pierre Cesarini (CEO)	6.3
Claranova treasury shares	2.2
La Financière de l'Europe	0.3
Promepar Asset Management	0.2
Lyxor International Asset Management	0.2
Sébastien Martin (CFO)	0.1

Companies named in this report
Avast (AVST LN), CEWE Stiftung (CWC GR), Cimpress (CMPR US), Kape (KAPE LN), Telit Communications (TCM LN)

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