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Company Price (EUR)	PT (EUR)	Rating Potential (%)
1&1 Drillisch		**Buy**
36.88	64.00	73.5%
United Internet		**Buy**
37.20	61.00	64.0%

Investment case still intact despite many moving parts

The 1&1 Drillisch share price has declined by roughly 40% year-to-date.

Possible explanations for this drop include uncertainty surrounding possible investment in 5G and/or fibre networks, fears for the growth potential of 1&1 Drillisch in the current highly competitive landscape and the rather poor overall performance of the telecommunications sector.

This report outlines and analyses the current infrastructure discussion, provides an overview of the regulatory framework and updates our financial models for 1&1 Drillisch and United Internet. The report is based on many conversations with United Internet and Drillisch, industry peers and the German networks regulatory authority (Bundesnetzagentur).

1&1 Drillisch: We conclude that 1&1 Drillisch will not acquire frequencies at the auction scheduled for spring 2019 as the conditions of the auction set by the Bundesnetzagentur are likely to make it rather difficult commercially for 1&1 Drillisch to invest, e.g. no binding obligation on the networks to provide national roaming

However, in our view, nonparticipation in the auction is clearly the better option for 1&1 Drillisch. The business model remains capex-lean and with its MBA-MVNO contract, 1&1 Drillisch still has full flexibility when it comes to network capacities and technologies. Furthermore, we anticipate continued customer growth in 2019 and 2020 based on the "1&1" brand, distribution power, product innovation and customer service. As a result, we estimate that EPS will grow from EUR 2.18 in 2018e to EUR 3.24 in 2020e. The DCF-based PT is revised from EUR 70 to EUR 64.

United Internet: We reduce our SotP-based PT from EUR 64 to EUR 61. We do not regard the infrastructure investment question in connection with Versatel as a risk. In 2018e United Internet is already investing ca. EUR 290m group-wide. We assume that fibre-to-the home would increase capex to roughly EUR 350-370m annually which is not a major game-changer.

1&1 Drillisch reflects c. 64% of our fair EV (for UI).

Our assumptions are rather low for customer growth in Business Applications as a review and rebranding process is currently underway. Acceleration of customer growth would represent a new catalyst.

Catalysts for share price recovery could include greater clarity about the future business model of 1&1 Drillisch, downward revision of the EBITDA guidance of EUR 750m (in our view, this level can no longer be reached), positive momentum in mobile customer growth, FCF improvement in the coming quarters and quarterly earnings growth, which would restore investor confidence in the overall capacity for growth at 1&1 Drillisch.

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Infrastructure

There has been much speculation about the possibility of **a substantial increase in investment in telecommunication network infrastructure by 1&1 Drillisch in mobile/5G and by United Internet in fibre/fixed-line with Versatel**.

In the next sections we provide an overview of current discussion and speculation as well as our view on the prevailing issues. At this stage it should be mentioned that the United Internet group pays annual network fees of c. EUR 1.3bn, of which roughly EUR 500m for mobile and EUR 700m for fixed-line. They are paid to the network operators such as Deutsche Telekom, Telefonica Deutschland and Vodafone and they are shown in the P&L as OPEX:

If United Internet (and/or 1&1 Drillisch) decides to increase infrastructure investment, annual network fees should decrease over time. The value of the decreasing (network-related) OPEX should be higher than the additional investment in the network infrastructure.

Mobile infrastructure/5G – 1&1 Drillisch

Current infrastructure and network situation

In mobile, 1&1 Drillisch has three network access agreements:

- MVNO-3G/3.5G with Vodafone; pay-as-you-go basis
- MVNO-4G (limited speed) with E-Plus/Telefonica Deutschland, pay-as-you-go basis
- MBA-MVNO agreement with Telefonica Deutschland until 2030.

The third is the most important because it secures access to all future technologies without any limitations on speed and 1&1 Drillisch has the option to request up to 30% of Telefonica D's used network capacities.

1&1 Drillisch is in a very strong position

The MBA/MVNO contract is secured and overviewed by a trustee appointed by the EU Commission. The mechanics of the contract have been described in many of our past publications. (See for example our note dated 08.01.2018, "Combined strengths of 1&1 and Drillisch to drive profit and growth")

Essentially, **the MBA-MVNO contract puts 1&1 Drillisch in an outstandingly strong position:**

- Access to up to 30% of the used network capacities of the Telefonica Deutschland mobile telecommunication infrastructure for favourable purchase conditions.
- No obligation to make infrastructure-related investments.
- The contract includes all future technologies including 5G without any speed limitations.
- **The agreement is monitored by a trustee acting on behalf of the EU Commission. Essentially, in the case of a disagreement, the trustee arbitrates rather than a court, which results in much faster settlement.** Futhermore, the trustee should generally tend to favour 1&1 Drillisch as the contract was put in place by competition authorities to ensure the market presence of at least one non-network party that is able to challenge the network operators and keep competition healthy.

The infrastructure option

The auction for the frequencies in Germany, which is due to take place in spring 2019, theoretically gives 1&1 Drillisch an additional commercial option – i.e. the opportunity to invest in its own mobile telecommunication infrastructure.

It is important to stress at this stage that this is an option rather than an economic necessity or imperative for 1&1 Drillisch.

Management however sees three **important pre-conditions** for a potential infrastructure investment.

- **National roaming:** To offer a nationwide service, 1&1 Drillisch needs access to the networks of other operators during the investment phase. If we understand 1&1 Drillisch correctly, it is referring to national roaming for 3G and 4G and NOT for 5G! This is very important to understand as without national roaming (during the investment phase), building a network is impossible. In the investment and build-up phase customers would then be served only in regions where the new network already exists. In other areas, customers would not have a mobile connection
- **The regulator ("Bundesnetzagentur")** should arbitrate in the case of disagreements. Network operators have a high interest in discriminating against 1&1 Drillisch when it comes to national roaming and disagreements about it. Hence, in our view (and obviously in the view of 1&1 Drillisch) national roaming agreements must be monitored by the regulator to ensure the absence of discriminatory action.
- New entrants should have another timeline and lower restrictions for the development of the new network.

Even if such pre-conditions are fulfilled, it does not necessarily mean that 1&1 would automatically invest in its own mobile network. We see it as a second commercial option along with the existing MBA-MVNO model. In our view, 1&1 Drillisch is likely to calculate both models and compare the results before making a decision about infrastructure investment.

Frequency auction process: timeline and regulatory statements

National roaming and general auction conditions have been addressed several times by the German press recently.

White spots: The implementation of national roaming to cover "mobile white spots" in Germany, or areas without mobile reception, was addressed by a working paper given by the German networks regulator (Bundesnetzagentur) to the political advisory committee, as reported by several newspapers (e.g. Handelsblatt and FAZ) on August 17, 2018. The political advisory committee asked the Bundesnetzagentur if national roaming among the current three network operators could reduce the number of white spots. However, this is separate to the issue of spectrum auctions in 2019.

Almost two weeks later **on August 30**, Handelsblatt reported on a working paper or regulatory statement by the Bundesnetzagentur to the political advisory board. Among the key points of the article were:

- The Bundesnetzagentur was reported to have made a definitive decision on the conditions for the frequency auction.
- No obligation to open (5G) networks for MVNOs or service providers for regulated prices.
- No national roaming obligation: The Bundesnetzagentur sees no legal requirement to put in place such a national roaming obligation.

The above-mentioned working paper was later made public. We examined the documents and spoke to the Bundesnetzagentur.

Firstly, we conclude that there has been no definitive decision. However, the working paper represents a regulatory framework as a basis for discussion.

Secondly, while the Bundesnetzagentur has said that there will be no national roaming obligation, national roaming should be possible via commercial contracts. However, to support MVNOs and service providers, the Bundesnetzagentur intends to put in place a non-discrimination rule. If an MVNO or service provider has concrete evidence that a network operator is blocking a national roaming agreement, the Bundesnetzagentur can be called upon to arbitrate.

Timeline: On September 24, 2018, a definitive regulatory statement on the frequency rules and conditions was issued to the political advisory board. This will be followed by a public consultation process until November before a decision is made by the Bundesnetzagentur.

1&1 Drillisch's roaming "starter kit" option

1&1 Drillisch already has the option of availing of national roaming. The EU ruled that the MBA-MVNO contract with Telefonica Deutschland had to include a national roaming obligation. If the agreement partner decides to invest in its own infrastructure, Telefonica Deutschland is obliged to provide this service.

Terms and conditions of the so-called national roaming "starter kit" are not public. We could imagine that the length of time that Telefonica Deutschland is obliged to provide national roaming could be rather short. This could make an infrastructure strategy rather difficult from a commercial point of view.

First conclusions

Both cases (pure MBA-MVNO model vs. combined MBA-MVNO and infrastructure model) can be value-creative for 1&1 Drillisch.

Pure MBA-MVNO model

- Capex-light business model
- High flexibility because 1&1 can increase the needed network capacities via its network options
- Price and volume adjustments are less restrictive in the second period (2020-2025) than in the first contract period
- It is not clear what will happen after 2030. However as mobile telecommunication markets have been highly dynamic over years, it is very difficult to anticipate trends beyond 2030. Firstly, the 1&1 Drillisch existing customer base must continue to be served. Secondly, 1&1 should reach >15m customers in the next two years in mobile and fixed-line. This should give 1&1 Drillisch enough power to secure network access even after 2030.

Combined model MBA-MVNO + infrastructure investment

- As a first step 1&1 Drillisch would invest in 5G frequencies/spectrum (spring 2019). Afterwards we believe 1&1 would outsource the build-up and operation of the infrastructure to a specialist.
- In the period 2020e-2025e 1&1 Drillisch would retain the MBA-MVNO contract while, at the same time, gradually building up its own infrastructure.

- The business model would change from a capex-light to a capex-based model. ROCE would probably suffer initially, while there would also be a risk of a negative re-rating of the stock. There is currently a high valuation gap between network operators and 1&1 Drillisch, based on the different growth and ROCE profiles.

As pointed out several times in the past, the situation is currently in flux and there are many moving parts. However, we conclude that the most attractive business case for 1&1 Drillisch remains the MBA-MVNO-only approach. The business case provides full flexibility without any capex investment and long-term access to network capacities as well as all future technologies.

Regulatory framework looks rather network operator friendly

In our view the regulatory framework described in the working paper can be qualified as rather network operator friendly. There is no definitive obligation to roll out a nationwide 5G network. The paper includes only an obligation to reach a percentage coverage of the total population with a minimum speed. It says nothing about obligations for coverage of commercial areas, business centres or industrial areas.

Several options for 1&1 Drillisch's mobile infrastructure strategy

1&1 Drillisch has several options for its potential mobile infrastructure investments. In a first step, the necessary frequencies and spectrum capacities have to be acquired. We describe this as the "level one" investment.

"Level two" investments could be seen as the building and rollout of the network. At level two, 1&1 Drillisch can do the investments directly itself. Then, the network investments are seen as typical capex. Alternatively, 1&1 Drillisch could sign a vendor-financing model or outsource the complete infrastructure building and operation to network infrastructure suppliers. This approach would change capex into regular managed-based network fees which are recognized as opex.

Fixed-line/fibre investment – United Internet/Versatel

UI operates the second largest fibre-backbone network in Germany (45,839 km) and has 8,341 connected sites. It serves mainly enterprises with fibre access as well as companies and carriers with backbone services.

The network plays a key role in the 1&1 Drillisch VDSL/Vectoring strategy and is prepared to roll out fibre to the last mile, connecting households as well as firms (with fibre).

There has been lively discussion about fibre infrastructure investments in Germany. The German government has expressed its wish to subsidise investment in broadband. However, the situation seems rather complicated as reflected in the many public statements on this issue.

Mr. Dommermuth's suggestions (CEO United Internet and 1&1 Drillisch)

- Establishment of a joint venture network company between the related parties.
- The network company would have the long-term strategic goal of reaching 60% coverage and providing 30m homes nationwide with fibre access.
- The network company needs to invest roughly EUR 30bn of which EUR 10bn would come from public subsidies. EUR 10bn is contributed as equity from the network operators involved (such as Deutsche Telekom and United Internet). EUR 10bn is collected via a debt issuance.

- Equity contribution relates to the broadband market share. UI which serves 1&1 Drillisch with network services has a market share of roughly 15%. Hence, in this model, UI would have a total investment sum of EUR 1.4bn.
- If investments are stretched over 10 years, UI would invest an additional ~EUR 140m each year.

Mr. Hoettges' suggestions (CEO Deutsche Telekom)

- Exclusive joint venture between Deutsche Telekom and United Internet to roll out fibre to the home in several regions in Germany.
- Coverage of up to 5.3m households.

Summary and conclusion

- Dommermuth's proposal is for a nationwide network company for complete coverage in Germany and is open to all relevant parties while Hoettges refers to an exclusive shared investment between Deutsche Telekom and United Internet only in several regions with a limit of up to 5.2m households.

Deutsche Telekom calculates with an investment per line of EUR 1,000 and UI of EUR 1,400 per line. Hence, the Hoettges plan implies a total investment of between EUR 5.4bn and EUR 7.5bn. Assuming that UI would hold 25% of the JV, UI would have to cover between EUR 1.35bn and EUR 1.89bn.

We regard the statements by Dommermuth and Hoettges as tactical in nature and, ultimately, lobbying.

Secondly, also in this case, Dommermuth's pre-condition is that the Bundesnetzagentur would arbitrate in the event of any disputes or misunderstandings between Deutsche Telecom and United Internet.

Thirdly, talks have just started and are still at a very early stage.

In discussions, UI refers to investments of roughly EUR 7bn needed to implement the Hoettges' suggestion. In a case that (a) UI holds 25% in the JV, (b) the investment phase is scheduled for 10 years, (c) EUR 5bn are contributed via debt and EUR 2bn via equity, UI would have additional capex of only EUR 50m (per year). However, in our view, someone has to guarantee the debt and to pay the interest expenses. Hence, the cash outflow for UI would be higher than EUR 50m. Furthermore, UI needs to partly guarantee the debt which would increase UI's risk exposure.

Model update for 1&1 Drillisch

1&1 Drillisch: financial model

With the appointment of Ralph Dommermuth as the new CEO of 1&1 Drillisch, financial disclosure has changed and 1&1 Drillisch publishes a less detailed set of financial KPI than Drillisch did in the past.

Consequently a complex KPI model no longer makes sense because the data simply cannot be verified. Therefore, we are introducing a new KPI model for our revenue calculation as shown in the table below.

Main assumption for our revenue model

- ARPU blended: From the figures for Q1 and Q2 2018, we derived the blended ARPU by dividing reported revenues by the total customer base. In Q1 the figures stood at EUR 23.60 and in Q2 at EUR 23.40.
- Revenue projections 2018e-2020e: Revenue projection is a simple function of ARPU multiplied by the total customer.
- Total customer base projections. To derive the total customer base, we estimate the customer numbers for 2018e-2020e. In mobile, we expect annual gross additions of 2.3m which results in a constant churn-rate (WRe) of 1.3% per month, expected net additions of 900k in 2018e, 720k in 2019e and 600k in 2020e. In fixed-line (DSL/VDSL) gross adds are expected at an annual level of ca. 700k.
- Increasing ARPU: blended ARPU should increase over time. Customers should opt for higher tariffs in both mobile and fixed-line.
- Compared to our old model, net additions projections have been reduced due to the current strong price competition in the German mobile telecommunication market. In our former model we expected 1.1m net additions for 2018e (now: 900k).

The next table shows EBITDA projections until 2020e

1&1 Drillisch new revenue and KPI model

1&1 Drillisch: Revenue & ARPU model	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Revenues in EUR m	**904**	**915**	**906**	**915**	**3,640**	**3,951**	**4,186**
change qoq		*1.2%*	*-1.0%*	*1.1%*			
Total customer base in m	**12.91**	**13.11**	**13.31**	**13.62**	**13.74**	**14.55**	**15.23**
net additions	**270**	**200**	**195**	**315**	**980**	**810**	**680**
therof mobile in m	**8.54**	**8.73**	**8.92**	**9.20**	**9.20**	**9.92**	**10.515**
net additions in k	240	190	185	280	925	720	600
thereof fixed-line in m	**4.37**	**4.38**	**4.39**	**4.43**	**4.43**	**4.515**	**4.595**
net additions in k	30	10	10	35	55	90	80
ARPU blended in EUR	**23.59**	**23.44**	**22.86**	**22.67**	**23.00**	**23.28**	**23.43**
mobile gross additions in k	**601**	**561**	**565**	**668**	**2,395**	**2,320**	**2,325**
fixed-line gross additions in	177	157	157	182	671	727	730
total gross additions in k	**778**	**718**	**721**	**849**	**3,066**	**3,047**	**3,055**

Source: Warburg Research

Drillisch: EBITDA projections

1&1 Drillisch: Revenue und EBITDA model	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Revenues in EUR m	**904**	**915**	**906**	**917**	**3,642**	**3,951**	**4,186**
Total expenses in EUR m	739	740	730	705	2,914	3,083	3,183
in% of Revenues	82%	81%	81%	77%	80%	78%	76%
EBITDA in EUR m	**165.5**	**174.5**	**198**	**190**	**728**	**868**	**1,003**
margin	18%	19%	22%	21%	20%	22%	24%

Source: Warburg Research

Drillisch: Changes in estimates

Changes in Estimates:

FY End: 31.12. in EUR m	2018e (old)	+ / -	2019e (old)	+ / -	2020e (old)	+ / -
Sales	3,628	0.4 %	3,874	2.0 %	4,114	1.8 %
EBITDA	771	-5.5 %	826	5.2 %	891	12.6 %
EBIT	610	-5.3 %	659	8.0 %	724	16.5 %
EPS	2.31	-5.6 %	2.49	8.0 %	2.78	16.5 %

Comment on Changes:

- Fine-tuning of our expectations
- 2018e: Our EBITDA expectation of EUR 770m was higher than consensus expectations and guidance of EUR 750. Reflecting lower customer intake and higher overall cost base, our EBITDA prognosis is reduced to EUR 740m.
- 2019e: Adjustments resulting from our new KPI model approach.
- 2020e: EBITDA: Increase of our assumed scale and cost synergy effects

Source: Warburg Research

Summary of our investment case for 1&1 Drillisch

Many moving parts increase uncertainty

Currently there are many moving parts affecting our investment case for 1&1 Drillisch. There is the important question of a potential 5G network investment. If 1&1 Drillisch decides to build up its own mobile infrastructure, there is the risk of an ongoing de-rating because multiples might increasingly go to a level typical for European network operators. Furthermore, our investment case would turn from a capex-light to a capex-intensive model, absorbing a high level of cash.

Price competition has intensified massively in the German mobile telecommunication market. As a result, 1&1 Drillisch cut the customer growth guidance from 1.2m to 1.0m for 2018. In our new KPI model, we reflect continued strong customer growth in 2019e and 2020e. In the current situation, risks have increased for our KPI model.

Reduced level of disclosure

Since the change of ownership in Drillisch, the level of disclosure has decreased. Compared to classical incumbents such as Deutsche Telekom or Vodafone, 1&1 Drillisch publishes less data. 1&1 Drillisch only publishes the figures for DSL/VDSL and mobile customers. Hence, quarterly fundamental analysis is limited and projections are more difficult.

Strong position in network access

In fixed-line, 1&1 Drillisch has sufficient access to broadband infrastructures via UI's fibre backbone network and the contracts with Deutsche Telekom. There are several positive options. UI could start to invest in fibre-to-the-home which would give 1&1 Drillisch the opportunity to market fibre lines to private households. Potential regulatory remedies for the approval of the Unity Media-Vodafone merger could open the cable networks for UI and/or 1&1 Drillisch. Then, 1&1 Drillisch would be in a position to distribute fibre, DSL/VDSL and cable lines to consumers.

Once again, the MBA-MVNO contract puts 1&1 Drillisch in the same position as a network operator until 2030e. Access to up to 30% of Telefonica's network capacities is guaranteed and regulated by an EU trustee. 1&1 Drillisch can operate like an MNO until 2030 without the typical capex and technology risks of an MNO.

Good marketing and distribution platform

1&1 Drillisch distributes its products and services mainly over direct online channels. In the brand portfolio, 1&1 is the well-known premium brand for telecommunication services in Germany. There are several discount brands, such as Smartmobil, while the e-mail brands WEB.DE/GMX service more than 36m mail accounts. In our view, 1&1 Drillisch has strong reach to consumers in Germany. The strong distribution platform is supported by good quality customer care services. It should be mentioned that the brands WEB.DE and GMX are owned by United Internet. However, they are strongly used by 1&1 Drillisch for marketing purposes.

Expected customer and earnings growth as potential catalysts

EPS is expected to increase from EUR 2.19 in 2018e to EUR 3.24 in 2020e (CAGR: 22%) and FCF per share from EUR 0.41 in 2018e to EUR 3.78 in 2020e

The total customer base is forecast to increase from 12.6m in 2017 to 15.23m in 2020e

(CAGR: 6.5%), mainly driven by mobile telecommunication.

Quarterly reporting should support our thesis and should be a strong catalyst for the share price.

Capex-light business model

For the time being, we assume that 1&1 Drillisch will not invest in infrastructure. The company is in an excellent position for the next 12 years as it does not have to cover the technology and capex risks of a MNO. At the same time, 1&1 Drillisch can operate as if it were an operator thanks to the MBA-MVNO contract with Telefonica Deutschland.

High potential to redistribute profits to investors

In our model, we expect EBITDA to increase to EUR 958m by 2020e. This should translate into FCF of EUR 640m or FCF per share of EUR 3.60. The company is debt-free and working capital and capex do not require a high level of liquid funds. Hence, if the business model remains capex-lean, the company could pay out all of its FCF to investors. This would imply a dividend yield of 7.6% by 2020e.

Improving competitive quality in fixed-line

In fixed-line 1&1 Drillisch currently distributes mainly VDSL/DSL lines to consumers. United Media and Vodafone are in merger talks. In our view, the merger will only receive regulatory approval with a significant set of remedy conditions. The merged entity will be forced to open its cable network and infrastructure for companies like 1&1 Drillisch. In this case, 1&1 Drillisch could add cable offerings to its portfolio. Furthermore Versatel is upgrading its fibre-optic network and potentially connecting homes with the network in the future. Then, 1&1 Drillisch would be in a position to sell fibre-optic solutions to private households in certain regions.

United Internet

We see United Internet as a holding company with the following major holdings:

- 1&1 Drillisch: UI holds 73% in 1&1 Drillisch which is the major value driver and value contributor to UI's fair value.
- 66% share in Business Applications: In the entity Business Applications, UI sells and distributes hosting, cloud, web services and e-shop solutions worldwide to e.g. small and medium-sized businesses and the self-employed, among other customer groups.
- Consumer Applications: UI has 100% ownership. The main assets are the portals and websites WEB.DE and GMX which offer mail, communication, and office services to consumers in Germany.
- Versatel (100% ownership): Versatel distributes telecommunication and network services to enterprises and carriers. Versatel operates the second-largest fibre backbone network in Germany.
- Minority holdings: UI has a 9%-stake in Rocket Internet and a 29%-stake in Tele Columbus.

Consumer Applications

Via its two German portals WEB.DE and GMX, the entity serves 36.06m active free e-mail accounts and 1.99m paid accounts in Germany. An account is described as "active" if the consumer has used and logged-in at least once within one month.

Main services are communication & organisation, cloud storage (18m customers) and online office. Portals are hosted in own data centres. Main competitors are Telekom and Google. In terms of traffic and number of active accounts, WEB.DE and GMX combined take the market leading position in Germany.

In Consumer Applications UI sees its key competitive advantages in data protection, data security and the marketing of the advertising space at WEB.DE and GMX via its own United Internet Media entity.

Revenues are generated mainly via advertising services for enterprises, e-commerce services and value-added services to consumers. In H1 2018 Consumer Applications achieved revenues of EUR 140m which reflects a revenue growth rate of 4.3% (+ EUR 0.5m from IFRS 15). Of the EUR 140m, EUR 80m (57%) should be contributed by advertising and EUR 60m from paid consumer services.

EBITDA stood at EUR 54.4m which reflects an EBITDA margin of 38.9%.

Business Applications

In Business Applications UI sells and distributes hosting, server, data centre, cloud, web-site, payment, domain shop solutions to SME on a subscription basis.

Globally, the company operates 10 data centres with more than 90k servers. Most important software tools are developed in-house. The entity offers its own infrastructure and solutions to SMEs.

Brief overview of Business Applications:

- Markets: Germany, Austria, Poland, Spain, Italy, France, Netherlands, U.S.A., Canada, Mexico.
- >8m subscription-based contracts, of which ~3m are SME customers
- Largest web host company in Europe and third-largest domain registrar worldwide

- >24m domains under management worldwide
- 1&1 website receives queries from more than 100 countries
- 4,500 employees
- Competitors: Endurance, GoDaddy, WEB.COM, WIXX, among others
- H1 2018 Sales +15.9% to EUR 419.3m (l-f-l growth +4.5%; excluding consolidation effects and IFRS15 effect) and EBITDA + EUR 26% to EUR 149m (margin 36.5%).
- The ARPU per customer is estimated to be roughly EUR 10/month.

Market potential and growth drivers

The general and theoretical growth driver for the hosting/e-services/cloud market for SMEs sounds rather simple. SMEs need a presence in the internet, a shop solution, a distribution channel as well as other digital-driven support.

UI identifies roughly 129m SMEs worldwide which might acquire such services, of which roughly 59m are within UI's target market.

Hence, the market looks huge with multiple growth opportunities. Having said that, it seems difficult to understand why the segment has achieved almost no organic customer growth in recent years.

To accelerate revenue growth, UI needs to accelerate customer growth. A critical challenge in this respect seems to be to convert potential and theoretical customers into paying and active customers. UI has not yet discovered a smart way to do that.

Currently, UI is in a strategic review and re-branding process for its brand portfolio.

KPI model United Internet

In this section we provide our KPI model for United Internet for revenues, EBITDA and EBIT.

United Internet's revenues are c. 87% subscription-based: Mobile telecommunications, broadband access/fixed-line, Hosting-/cloud subscriptions.

Hence, group revenues are mainly a function of ARPU and the number of subscriptions and revenue growth is mainly driven by ARPU and/or subscription growth.

Consumer Applications

In the business unit Consumer Applications, the revenue basis is mainly pay products such as paid mail and value-added services such as anti-virus, additional web space, among others. At the end of Q2 2018, UI had 1.99m pay products and ARPA (Average Revenue Per Account) is estimated to be roughly at EUR 4.00 (WRe). For 2018, we expect 2.0m pay product subscriptions which results in expected revenues of EUR 96m. In 2019e and 2020e revenues are assumed to remain flattish as there is expected to be only limited consumer demand for UI paid products.

Second major revenues stream are free accounts which are monetised by selling online advertising space on UI's portals WEB.DE and GMX to advertisers.

The number of free accounts is expected to stay at 36.2m and the ARPA is estimated at EUR 0.43 resulting in revenues of EUR 185m by the end of 2018e. We do not expect strong ARPA and/or free accounts. Our assumptions are summarised in the table below.

Revenue model Consumer Applications

Consumer Applications (CA)	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Revenues CA in EUR m	**72**	**68**	**67**	**73**	**280**	**287**	**291**
Free Accounts in m	36.27	36.06	36.0	36.2	36.2	36.2	36.2
Pay products in m	1.980	1.990	1.990	2.000	2.000	2.000	2.000
ARPA pay products (WRe) in EUR	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Revenues pay products in EUR m	**24**	**24**	**24**	**24**	**96**	**96**	**96**
ARPA free accounts in EUR	0.44	0.41	0.40	0.45	0.43	0.44	0.45
Revenues free accounts in EUR m	**48**	**44**	**43**	**49**	**185**	**191**	**195**

Source: Warburg Research

Business Applications

In recent years revenue growth was mainly achieved by acquisitions and by ARPU optimisation.

We are expecting the situation to remain unchanged for 2018, 2019e and 2020e. Hence we are anticipating rather low revenue growth rates of 3.4% in 2019e and 3.0% in 2020e. In 2020e we anticipate 8.5m subscriptions and an ARPU of EUR 8.95.

Revenue model Business Applications

Business Applications (BA)	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Revenues BA in EUR m	**209.4**	**210**	**214**	**217**	**850**	**882**	**913**
change						*3.8%*	*3.5%*
Subscriptions in m	8.05	8.07	8.19	8.21	8.21	8.35	8.5
ARPU BA/Hosting in EUR	8.67	8.67	8.70	8.8	8.63	8.8	8.95

Source: Warburg Research

Business Applications and segment summary

In recent years revenue growth was mainly achieved by acquisitions and by ARPU optimisation.

We are expecting the situation to remain unchanged for 2018, 2019e and 2020e. Hence we are anticipating rather low revenue growth rates of 3.4% in 2019e and 3.0% in 2020e.

The next table summarises our projections for Consumer and Business Applications. As already described we are anticipating a continued low growth profile until 2020e.

Summary revenue model for the segment Applications

Summary Rvenues Applications	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Applications segment revenues gross in EUR m	**281**	**278**	**281**	**290**	**1,130**	**1,169**	**1,204**
Consolidation	-1	-1	-1	-1	-4	-5	-6
Applications segment revenues net in EUR m	**280**	**277**	**280**	**289**	**1,126**	**1,164**	**1,198**
change						*3.4%*	*3.0%*

Source: Warburg Research

Access segment: Consumer and Business Access

The Access segment can be separated into Consumer Access, which represents the businesses of 1&1 Drillisch and financials, and Business Access, which mainly reflects the activities of Versatel.

For Business Access we are expecting revenues in the range of EUR 443-450m for the years 2018e, 2019e and 2020e. Segment growth of +7.4% expected in 2019e and +5.6% expected in 2020e is driven by the Consumer Access business line.

Revenue model Access segment

Access in EUR m	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Reported Revenues 1&1 Drillsich	**904**	**915**	**906**	**917**	**3,642**	**3,941**	**4,185**
Consolidation effects	-6	-7	-6	-6	-25	-28	-31
Revenues Consumer (1&1 Drillisch)	**898**	**908**	**900**	**911**	**3,617**	**3,913**	**4,154**
change						*8.2%*	*6.2%*
Revenues Business (Versatel)	**110**	**112**	**111**	**110**	**443**	**445**	**450**
Access segment revenues gross	1,008	1,020	1,011	1,021	4,060	4,358	4,604
Consolidation 2	-13	-14	-13	-14	-54	-56	-59
Acces segment revenues net	**996**	**1,005**	**998**	**1,007**	**4,006**	**4,302**	**4,545**
change						*7.4%*	*5.6%*

Source: Warburg Research

United Internet – Summary group revenues

We expect group revenues to grow at a CAGR (18e-20e) of 5.7% to EUR 5.7bn. Growth drivers for the group are mainly mobile subscriptions.

In 2020e we estimate 25.73m subscriptions in mobile telecommunication, broadband access, consumer application products and business application packages.

Furthermore, expected revenue growth is mainly driven by mobile telecommunication. We estimate total revenue growth of EUR 608m from 2018e to 2020e. Roughly 80% of United Internet's revenue growth is estimated to be contributed by 1&1 Drillisch's mobile telecommunication business line.

United Internet Group – Summary revenues

United Internet: in EUR m	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Revenues Applications	**280**	**277**	**280**	**289**	**1,126**	**1,164**	**1,198**
change						*3%*	*3%*
in% of Group Revenues						21%	21%
Revenues Access	**996**	**1,005**	**998**	**1,007**	**4,006**	**4,302**	**4,545**
change						*7%*	*6%*
in% of Group Revenues						79%	79%
Group Revenues gross	**1,276**	**1,282**	**1,278**	**1,296**	**5,132**	**5,466**	**5,743**
Consolidation	-5	-4	-4	-4	-17	-19	-21
Group Revenues	**1,271**	**1,278**	**1,274**	**1,292**	**5,114**	**5,447**	**5,722**
change						*6.5%*	*5.1%*
Subscription basesd revenues	**1,103**	**1,112**	**1,111**	**1,124**	**4,451**	**4,773**	**5,037**
in% of Group Revenues	87%	87%	87%	87%	87%	88%	88%

Source: Warburg Research

United Internet – EBITDA projections

- An EBITDA increase from EUR 1.19bn to EUR 1.5bn is forecast from 2018e to 2020e. This reflects a growth rate of +13% in 2019e, +11% in 2020e and an absolute EBITDA increase of EUR 305m. Main driver of EBITDA growth is again the mobile telecommunication business of 1&1 Drillisch, which contributes roughly 85% to our EBITDA growth projections.
- Consumer Applications is expected to remain almost flat at high margin levels (EBITDA margin expectations: 38.8%).
- In light of our assumption that customer growth in Business Applications will not accelerate until 2020e, EBITDA growth remains at low levels: +5% in 2019e and +4% in 2020e to EUR 328m. Based on our model, Business Applications contributes 21.8% to the expected group EBITDA.
- In 2020e, the Access segment is anticipated to add 71% and the Applications segment 29% to Group EBITDA.
- The tables below show our EBITDA projections.

United Internet: EBITDA projections Segment Applications

Applications - EBITDA projections in EUR m	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Consumer Applications Revenues	**72**	**68**	**67**	**73**	**280**	**287**	**291**
change						*2%*	*2%*
Consumer Applications EBITDA	**28**	**27**	**26**	**28**	**109**	**111**	**113**
change							
margin	38.2%	39.6%	38.8%	38.4%	38.7%	38.8%	38.8%
Business Applications Revenues	**209**	**210**	**214**	**217**	**850**	**882**	**913**
change						*4%*	*4%*
Business Applications EBITDA	**74.7**	**74.2**	**75**	**77**	**301**	**315**	**328**
change						*5%*	*4%*
margin	35.7%	35.4%	35.1%	35.5%	35.4%	35.7%	35.9%
Applications segment Revenues	**280**	**277**	**280**	**289**	**1,126**	**1,164**	**1,198**
change						*3%*	*3%*
Applications segment EBITDA	**102**	**101**	**101**	**105**	**409**	**426**	**441**
change						*4%*	*3%*
margin	36.5%	36.5%	36.1%	36.4%	36.4%	36.6%	36.8%

Source: Warburg Research

United Internet: EBITDA projections Segment Access

Applications - EBITDA projections in EUR m	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Consumer Applications Revenues	**72**	**68**	**67**	**73**	**280**	**287**	**291**
change						*2%*	*2%*
Consumer Applications EBITDA	**28**	**27**	**26**	**28**	**109**	**111**	**113**
change							
margin	38.2%	39.6%	38.8%	38.4%	38.7%	38.8%	38.8%
Business Applications Revenues	**209**	**210**	**214**	**217**	**850**	**882**	**913**
change						*4%*	*4%*
Business Applications EBITDA	**74.7**	**74.2**	**75**	**77**	**301**	**315**	**328**
change						*5%*	*4%*
margin	35.7%	35.4%	35.1%	35.5%	35.4%	35.7%	35.9%
Applications segment Revenues	**280**	**277**	**280**	**289**	**1,126**	**1,164**	**1,198**
change						*3%*	*3%*
Applications segment EBITDA	**102**	**101**	**101**	**105**	**409**	**426**	**441**
change						*4%*	*3%*
margin	36.5%	36.5%	36.1%	36.4%	36.4%	36.6%	36.8%

Source: Warburg Research

United Internet: EBITDA projections Group

United Internet - Group EBITDA in EUR m	Q1/18	Q2/18	Q3/18	Q4/18	2018e	2019e	2020e
Access segment EBITDA	**178**	**187**	**210**	**214**	**788**	**929**	**1,065**
						18%	*15%*
Applications segment EBITDA	**102.2**	**101.2**	**101.0**	**105.0**	**409.4**	**426.2**	**440.8**
change							
margin							
EBITDA gross	**280**	**288**	**311**	**319**	**1,198**	**1,355**	**1,506**
change						*13%*	*11%*
Consolidation	-1.5	-0.5	-1	-1	-4.0	-5.0	-5.0
Group EBITDA	**278**	**287**	**310**	**318**	**1,194**	**1,350**	**1,501**
change						*13%*	*11%*
margin	21.9%	22.5%	24.3%	24.6%	23.3%	24.8%	26.2%

Source: Warburg Research

Financials

The table below shows our sales and earnings adjustments.

United Internet: model update

Changes in Estimates:

FY End: 31.12. in EUR m	2018e (old)	+ / -	2019e (old)	+ / -	2020e (old)	+ / -
Sales	5,193	-1.5 %	5,500	-1.0 %	5,804	-1.4 %
EBITDA	1,191	0.3 %	1,272	6.1 %	1,367	9.8 %
EBIT	811	0.4 %	886	7.7 %	979	12.3 %
EPS	1.86	0.5 %	1.96	9.2 %	2.20	16.8 %

Comment on Changes:

- Fine-tuning of our sales expectations
- EBITDA: 2019e and 2020e: Increase in our EBITDA expectations for 1&1 Drillisch. We also increased our EBITDA assumptions for Business and Consumer Applications.

Source: Warburg Research

Valuation

- Our SotP model results in a fair value per UI share of EUR 61 or a fair EV of EUR 12.9bn. UI's 1&1 Drillisch's stake reflects 64% of the fair EV. Contribution to the fair equity value would be even higher because 1&1 Drillisch is net debt free.
- Fair value 1&1 Drillisch: To derive the fair value for the 1&1 Drillisch stake (UI owns 73% of Drillisch) we use our DCF-based PT of EUR 64. UI owns c. 129.6m 1&1 Drillisch shares which results in a value of EUR 8.3bn.
- Fair value Business Applications: For 2020e, we expect an EBITDA of EUR 328m. Using a fair EV/EBITDA multiple of 13x results in a fair EV of 4.2bn. The entity is leveraged with debts of EUR 1.5bn and Warburg Pincus holds c. 33% in the enterprise. Hence, the fair EV of EUR 4.2bn translates into a fair equity value of EUR 1.8bn which reflects 13% of UI's fair EV.
- Fair value Consumer Applications: 10x fair EV assumption multiplied by our EBITDA 2020e expectation of EUR 113m results in a fair EV of EUR 1.35bn or 10% of the overall fair EV for UI.

United Internet: SotP valuation

SotP United Internet

1. Fair Value segment Business Applications UI (in EUR m)	
EBITDA Business Applications 2020e	328
fair EV/EBITDA multiple	13
fair EV Applications	4,264
debt	1,550
fair equity value	2,714
Warburg Pincus stake in Business Applications	896
fair equity value Applicatiions	**1,818**

2. Fair Value segment Consumer Applications UI (in EUR m)	
EBITDA consumer Applications 2020e	113
fair EV/EBITDA multiple	10
fair EV Applications	1,350
Fair equity value consumer applications	**1,350**

3. Fair Value Versatel	
EV = Equity value of Versatel in EUR m	**600**

4. Fair value new Drillisch	
UI's number of Drillisch shares in m	129.6
PT for DRI in EUR	64
Fair value DRI stake in EUR m	**8,294**

5. Fair value calculation United Internet in EUR m		**Contribution to EV**
Fair value Drillisch	8,294	64%
Fair equity value Business Applications	1818	14%
fair equity value Consumer Applications	1,350	10%
Holdings Rocket Internet and Telecolumbus	440	3%
Net Debt	419	3%
Versatel	600	5%
Fair EV United Internet	**12,922**	**100%**

fair equity value United Internet	**12,503**
fair value per share in EUR	**61.0**

Source: Warburg Research

United Internet: Summary of investment case

Business description

United Internet is a holding company with several assets such as 1&1 Drillisch (73% ownership, stock-listed), Business Applications (67% ownership), Consumer Applications (100% ownership), Rocket Internet (9%, stock-listed) Tele Columbus (25%, stock-listed).

Valuation

Our SotP-approach indicates substantial upside. We think that we have used moderate multiples for Business and Consumer Applications. However, the key catalyst for UI's share recovery would clearly be a recovery of the 1&1 Drillisch share.

Expected recovery of the 1&1 Drillisch share as a major catalyst

UI's 1&1 Drillisch holding contributes 65% to our calculated fair EV. Year-to-date the stock declined by c. 40%. There are probably three major reasons.

Firstly, price competition in the German mobile telecommunication market has intensified. As a result, 1&1 Drillisch changed its customer growth outlook from 1.2m to 1.0m. There is some concern that 1&1 Drillisch cannot deliver the growth expected by investors at the time of the merger. Without growth, superior trading multiples for 1&1 Drillisch are not justified. Consequently there has been a de-rating since the beginning of the year. Nevertheless, we believe customer growth will continue at 1&1 Drillisch in 2019e and 2020e for the reasons described in this report.

Secondly, it is unclear if 1&1 Drillisch will invest in 5G licenses and subsequently the build-up of its own infrastructure. In our view, infrastructure investments seem rather unlikely. Auction conditions will be rather are unlikely *to* support an infrastructure case. Having said that, we think that 5G auction conditions will include some positive elements for MVNOs, supporting this business model.

Thirdly, poor performance of the overall telecommunication sector has not left 1&1 Drillisch unscathed. In our view, 1&1 Drillsch shows different characteristics to classic telecom players: (1) the company is free of net debt; (2) we expect growth in customer, revenue and strong EBITDA and FCF growth; (3) in our scenario, there are no capex-risks, i.e. the business model is capex-light.

Surprise potential in Business Applications

For the segment Business Applications we expect only slight revenue growth (+3% in 2019e and 2020e). A review of the business activities is ongoing and UI has already said there would be some rebranding. Rebranding and new growth strategies could accelerate customer and revenue growth, which would be positive. A return to customer growth could initiate a re-rating of the stock.

Subscription-based business model

At the end of 2018e, we expect UI to reach 23.94m subscriptions across all its products DSL/VDSL, mail, value-added consumer services, hosting/cloud, mobile. Average customer lifetime is greater than seven years. Hence, 87% of revenues could be described as recurring.

Company Price (EUR)	PT (EUR)	Rating Potential (%)	MC EUR m	EV EUR m	P / E 18e	 19e	 20e	P / B 18e	Div.yield 18e	ROCE 18e	Analyst Tel.
1&1 Drillisch 36.88	64.00	**Buy** 73.5 %	6,519.1	6,444.3	16.0 x	14.8 x	13.3 x	1.6 x	4.3 %	10.4 %	Jochen Reichert +49 40 309537-130
United Internet 37.20	61.00	**Buy** 64.0 %	7,582.8	9,377.8	20.0 x	19.0 x	16.9 x	1.8 x	2.4 %	9.3 %	Jochen Reichert +49 40 309537-130

DCF model

Figures in EUR m	Detailed forecast period 2018e	2019e	2020e	Transitional period 2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	Term. Value
Sales	3,606	3,786	3,938	4,095	4,259	4,387	4,475	4,564	4,655	4,748	4,820	4,892	4,965	
Sales change	*29.5 %*	*5.0 %*	*4.0 %*	*4.0 %*	*4.0 %*	*3.0 %*	*2.0 %*	*2.0 %*	*2.0 %*	*2.0 %*	*1.5 %*	*1.5 %*	*1.5 %*	*1.5 %*
EBIT	577	711	843	860	937	1,009	1,074	1,141	1,164	1,187	1,205	1,223	1,241	
EBIT-margin	*16.0 %*	*18.8 %*	*21.4 %*	*21.0 %*	*22.0 %*	*23.0 %*	*24.0 %*	*25.0 %*	*25.0 %*	*25.0 %*	*25.0 %*	*25.0 %*	*25.0 %*	
Tax rate (EBT)	*33.0 %*	*33.0 %*	*32.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	*33.0 %*	
NOPAT	387	476	574	576	628	676	720	764	780	795	807	819	832	
Depreciation	151	157	160	164	170	167	157	137	116	119	96	73	74	
in % of Sales	*4.2 %*	*4.1 %*	*4.1 %*	*4.0 %*	*4.0 %*	*3.8 %*	*3.5 %*	*3.0 %*	*2.5 %*	*2.5 %*	*2.0 %*	*1.5 %*	*1.5 %*	
Changes in provisions	0	0	0	4	-4	0	0	0	0	0	0	0	0	
Change in Liquidity from														
- Working Capital	39	13	18	1	3	2	1	1	1	1	1	1	1	
- Capex	45	45	47	41	43	44	45	46	56	62	67	73	74	
Capex in % of Sales	*1.2 %*	*1.2 %*	*1.2 %*	*1.0 %*	*1.0 %*	*1.0 %*	*1.0 %*	*1.0 %*	*1.2 %*	*1.3 %*	*1.4 %*	*1.5 %*	*1.5 %*	
Other	300	150	0	0	0	0	0	0	0	0	0	0	0	
Free Cash Flow (WACC Model)	153	425	669	702	749	797	830	854	839	851	835	818	831	843
PV of FCF	152	392	574	559	554	548	530	506	462	435	397	361	340	5,609
share of PVs	9.79 %			41.09 %										49.12 %

Model parameter			
Derivation of WACC:		Derivation of Beta:	
Debt ratio	0.00 %	Financial Strength	1.00
Cost of debt (after tax)	1.4 %	Liquidity (share)	1.00
Market return	7.00 %	Cyclicality	1.00
Risk free rate	1.50 %	Transparency	1.40
		Others	1.20
WACC	**7.66 %**	**Beta**	**1.12**

Valuation (m)			
Present values 2030e	5,810		
Terminal Value	5,609		
Financial liabilities	0		
Pension liabilities	2		
Hybrid capital	0		
Minority interest	0		
Market val. of investments	0		
Liquidity	0	No. of shares (m)	176.8
Equity Value	**11,418**	**Value per share (EUR)**	**64.59**

Sensitivity Value per Share (EUR)

Beta	WACC	Terminal Growth 0.75 %	1.00 %	1.25 %	**1.50 %**	1.75 %	2.00 %	2.25 %
1.30	8.7 %	53.20	53.92	54.69	55.51	56.39	57.34	58.37
1.21	8.2 %	56.90	57.77	58.71	59.71	60.80	61.97	63.23
1.17	7.9 %	58.95	59.91	60.95	62.06	63.26	64.57	65.99
1.12	7.7 %	61.15	62.21	63.36	**64.59**	65.94	67.40	68.99
1.07	7.4 %	63.51	64.69	65.96	67.34	68.85	70.49	72.29
1.03	7.2 %	66.06	67.37	68.79	70.34	72.02	73.88	75.92
0.94	6.7 %	71.80	73.44	75.23	77.19	79.34	81.74	84.40

Beta	WACC	Delta EBIT-margin -1.5 pp	-1.0 pp	-0.5 pp	**+0.0 pp**	+0.5 pp	+1.0 pp	+1.5 pp
1.30	8.7 %	52.04	53.20	54.35	55.51	56.67	57.82	58.98
1.21	8.2 %	56.00	57.23	58.47	59.71	60.95	62.19	63.43
1.17	7.9 %	58.20	59.49	60.77	62.06	63.34	64.63	65.92
1.12	7.7 %	60.59	61.92	63.26	**64.59**	65.93	67.27	68.60
1.07	7.4 %	63.17	64.56	65.95	67.34	68.74	70.13	71.52
1.03	7.2 %	65.98	67.43	68.89	70.34	71.79	73.24	74.69
0.94	6.7 %	72.43	74.01	75.60	77.19	78.77	80.36	81.95

- Base case scenario: Drillisch remains positioned in its Capex-lean business model and does not invest in infrastructure
- Base case assumption: Absence of irrational movements from competitors by initiating price wars.

Consolidated profit and loss

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Sales	**290**	**630**	**710**	**2,812**	**3,642**	**3,951**	**4,186**
Change Sales yoy	-0.3 %	117.3 %	12.8 %	296.1 %	29.5 %	8.5 %	5.9 %
COGS	0	0	0	1,888	2,562	2,726	2,823
Gross profit	**290**	**630**	**710**	**925**	**1,080**	**1,225**	**1,363**
Gross margin	*100.0 %*	*100.0 %*	*100.0 %*	*32.9 %*	*29.7 %*	*31.0 %*	*32.6 %*
Research and development	0	0	0	0	0	0	0
Sales and marketing	0	0	0	394	404	411	423
Administration expenses	0	0	0	74	87	91	92
Other operating expenses	0	0	0	45	36	40	42
Other operating income	0	0	0	28	25	28	38
Unfrequent items	0	0	0	0	0	0	0
EBITDA	**85**	**105**	**120**	**505**	**728**	**868**	**1,003**
Margin	*29.4 %*	*16.7 %*	*16.9 %*	*18.0 %*	*20.0 %*	*22.0 %*	*24.0 %*
Depreciation of fixed assets	1	5	4	15	16	17	17
EBITA	**84**	**101**	**117**	**490**	**712**	**851**	**986**
Amortisation of intangible assets	9	32	58	50	135	140	143
Goodwill amortisation	0	0	0	0	0	0	0
EBIT	**75**	**69**	**59**	**440**	**577**	**711**	**843**
Margin	*26.0 %*	*11.0 %*	*8.3 %*	*15.6 %*	*15.9 %*	*18.0 %*	*20.2 %*
EBIT adj.	**75**	**69**	**59**	**440**	**577**	**711**	**843**
Interest income	1	1	1	1	0	0	0
Interest expenses	4	4	4	10	1	1	1
Other financial income (loss)	0	0	0	0	0	0	0
EBT	**73**	**66**	**56**	**431**	**576**	**710**	**842**
Margin	*25.1 %*	*10.5 %*	*7.8 %*	*15.3 %*	*15.8 %*	*18.0 %*	*20.1 %*
Total taxes	23	20	29	121	190	234	270
Net income from continuing operations	**50**	**46**	**26**	**310**	**386**	**476**	**573**
Income from discontinued operations (net of tax)	0	0	0	171	0	0	0
Net income before minorities	**50**	**46**	**26**	**481**	**386**	**476**	**573**
Minority interest	0	0	0	17	0	0	0
Net income	**50**	**46**	**26**	**465**	**386**	**476**	**573**
Margin	*17.2 %*	*7.3 %*	*3.7 %*	*16.5 %*	*10.6 %*	*12.0 %*	*13.7 %*
Number of shares, average	55	55	55	177	177	177	177
EPS	**0.91**	**0.84**	**0.48**	**2.63**	**2.18**	**2.69**	**3.24**
EPS adj.	0.91	0.84	0.48	2.63	2.18	2.69	3.24

*Adjustments made for:

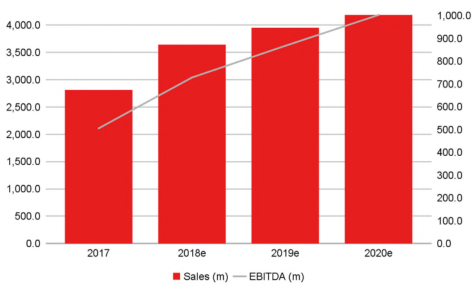
Guidance: n.a.

Financial Ratios

	2014	2015	2016	2017	2018e	2019e	2020e
Total Operating Costs / Sales	71.2 %	83.6 %	83.3 %	17.2 %	13.8 %	13.0 %	12.4 %
Operating Leverage	-81.7 x	-0.1 x	-1.2 x	2.2 x	1.1 x	2.7 x	3.1 x
EBITDA / Interest expenses	23.8 x	26.1 x	27.8 x	53.0 x	728.3 x	868.2 x	1003.5 x
Tax rate (EBT)	31.0 %	30.4 %	52.4 %	28.0 %	33.0 %	33.0 %	32.0 %
Dividend Payout Ratio	185.9 %	203.2 %	352.2 %	91.1 %	73.3 %	63.2 %	55.5 %
Sales per Employee	827,566	1,798,703	2,028,606	8,035,180	10,405,714	11,288,571	11,960,000

Sales, EBITDA

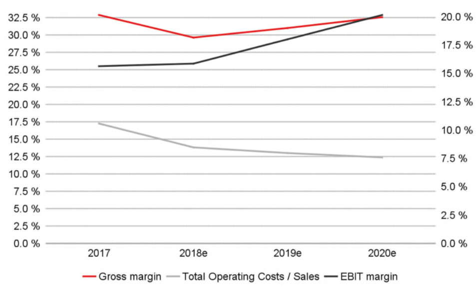
in EUR m



Source: Warburg Research

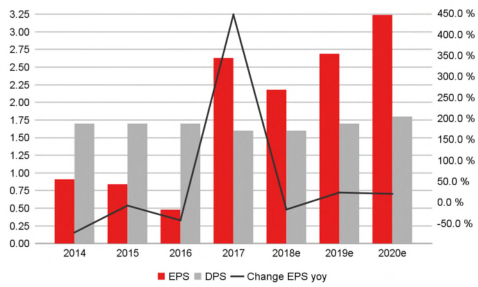
Operating Performance

in %



Source: Warburg Research

Performance per Share



Source: Warburg Research

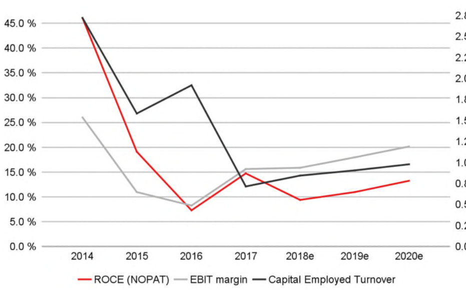
Consolidated balance sheet

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Assets							
Goodwill and other intangible assets	99	378	354	3,834	3,719	3,599	3,478
thereof other intangible assets	31	271	255	901	786	666	545
thereof Goodwill	67	107	99	2,933	2,933	2,933	2,933
Property, plant and equipment	3	11	11	15	24	32	40
Financial assets	0	0	1	6	6	6	6
Other long-term assets	0	0	0	0	546	546	550
Fixed assets	**101**	**390**	**365**	**3,855**	**4,295**	**4,183**	**4,074**
Inventories	5	32	10	46	52	56	76
Accounts receivable	48	89	93	183	240	271	287
Liquid assets	317	123	93	150	138	280	647
Other short-term assets	4	55	35	502	462	585	624
Current assets	**374**	**299**	**230**	**881**	**892**	**1,192**	**1,634**
Total Assets	**476**	**689**	**595**	**4,736**	**5,187**	**5,375**	**5,708**
Liabilities and shareholders' equity							
Subscribed capital	59	60	60	194	194	194	194
Capital reserve	231	296	296	2,447	2,447	2,447	2,447
Retained earnings	31	31	31	1,164	1,433	1,357	1,532
Other equity components	10	-34	-104	0	207	476	573
Shareholders' equity	331	353	283	3,805	4,281	4,474	4,747
Minority interest	0	0	0	0	0	0	0
Total equity	**331**	**353**	**283**	**3,805**	**4,281**	**4,474**	**4,747**
Provisions	9	19	24	100	114	117	120
thereof provisions for pensions and similar obligations	2	1	2	0	0	0	0
Financial liabilities (total)	91	167	178	274	175	175	175
thereof short-term financial liabilities	0	0	50	0	0	0	0
Accounts payable	22	81	45	230	250	271	287
Other liabilities	23	69	66	327	367	338	380
Liabilities	**144**	**336**	**312**	**931**	**906**	**901**	**962**
Total liabilities and shareholders' equity	**476**	**689**	**595**	**4,736**	**5,187**	**5,375**	**5,708**

Financial Ratios

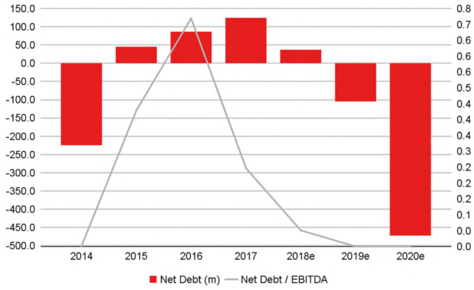
	2014	2015	2016	2017	2018e	2019e	2020e
Efficiency of Capital Employment							
Operating Assets Turnover	10.4 x	13.7 x	11.1 x	340.3 x	64.2 x	50.6 x	40.3 x
Capital Employed Turnover	2.7 x	1.6 x	1.9 x	0.7 x	0.8 x	0.9 x	1.0 x
ROA	49.1 %	11.9 %	7.2 %	12.1 %	9.0 %	11.4 %	14.1 %
Return on Capital							
ROCE (NOPAT)	46.1 %	19.1 %	7.3 %	14.7 %	9.4 %	11.0 %	13.3 %
ROE	18.1 %	13.5 %	8.3 %	22.7 %	9.5 %	10.9 %	12.4 %
Adj. ROE	18.1 %	13.5 %	8.3 %	22.7 %	9.5 %	10.9 %	12.4 %
Balance sheet quality							
Net Debt	-225	45	86	124	37	-105	-472
Net Financial Debt	-226	44	85	124	37	-105	-472
Net Gearing	-67.9 %	12.8 %	30.5 %	3.3 %	0.9 %	-2.3 %	-10.0 %
Net Fin. Debt / EBITDA	n.a.	41.6 %	70.5 %	24.6 %	5.1 %	n.a.	n.a.
Book Value / Share	6.0	6.4	5.2	21.5	24.2	25.3	26.9
Book value per share ex intangibles	4.2	-0.5	-1.3	-0.2	3.2	4.9	7.2

ROCE Development



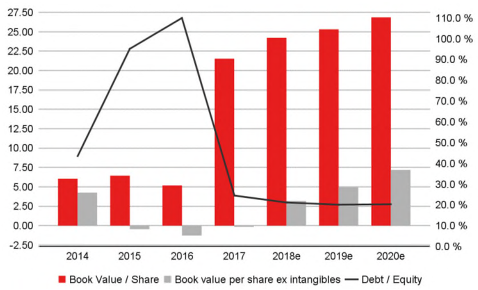
Source: Warburg Research

Net debt
in EUR m



Source: Warburg Research

Book Value per Share
in EUR



Source: Warburg Research

Consolidated cash flow statement

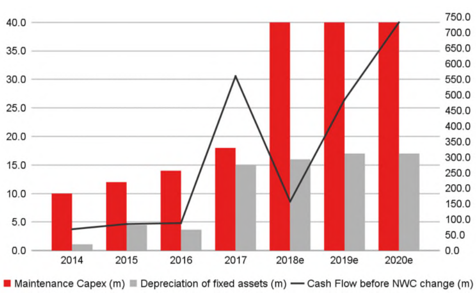
In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Net income	50	46	26	481	386	476	573
Depreciation of fixed assets	1	5	4	15	16	17	17
Amortisation of goodwill	0	0	0	0	0	0	0
Amortisation of intangible assets	9	32	58	64	135	140	143
Increase/decrease in long-term provisions	1	0	0	0	0	0	0
Other non-cash income and expenses	9	4	0	0	-380	-150	0
Cash Flow before NWC change	**69**	**86**	**88**	**560**	**157**	**483**	**733**
Increase / decrease in inventory	1	-27	22	0	-6	-4	-20
Increase / decrease in accounts receivable	-2	-41	-4	-71	-57	-31	-16
Increase / decrease in accounts payable	4	58	-37	-75	23	22	18
Increase / decrease in other working capital positions	0	0	11	0	0	0	0
Increase / decrease in working capital (total)	3	-9	-8	-146	-40	-13	-18
Net cash provided by operating activities [1]	**72**	**76**	**81**	**294**	**118**	**469**	**715**
Investments in intangible assets	-9	-160	-9	-10	-20	-20	-22
Investments in property, plant and equipment	-2	-4	-5	-16	-25	-25	-25
Payments for acquisitions	0	-7	-20	0	0	0	0
Financial investments	0	1	0	0	0	0	0
Income from asset disposals	1	0	1	0	0	0	0
Net cash provided by investing activities [2]	**-5**	**-169**	**-25**	**-49**	**-45**	**-45**	**-47**
Change in financial liabilities	0	0	10	96	-99	0	0
Dividends paid	-77	-90	-93	0	-283	-283	-300
Purchase of own shares	0	0	0	0	0	0	0
Capital measures	0	0	0	0	0	0	0
Other	140	-10	-4	0	298	0	0
Net cash provided by financing activities [3]	**63**	**-101**	**-86**	**-153**	**-84**	**-283**	**-300**
Change in liquid funds [1]+[2]+[3]	**130**	**-194**	**-30**	**92**	**-12**	**142**	**368**
Effects of exchange-rate changes on cash	0	0	0	0	0	0	0
Cash and cash equivalent at end of period	**317**	**123**	**93**	**184**	**138**	**280**	**647**

Financial Ratios

	2014	2015	2016	2017	2018e	2019e	2020e
Cash Flow							
FCF	66	-87	75	n.a.	73	424	668
Free Cash Flow / Sales	21.0 %	-13.9 %	9.4 %	9.5 %	2.0 %	10.7 %	16.0 %
Free Cash Flow Potential	52	74	77	537	498	594	694
Free Cash Flow / Net Profit	122.2 %	-189.9 %	251.7 %	57.7 %	18.8 %	89.2 %	116.6 %
Interest Received / Avg. Cash	0.4 %	0.3 %	1.1 %	0.8 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	4.0 %	3.1 %	2.5 %	4.2 %	0.4 %	0.6 %	0.6 %
Management of Funds							
Investment ratio	3.8 %	26.1 %	2.0 %	0.9 %	1.2 %	1.1 %	1.1 %
Maint. Capex / Sales	3.5 %	1.9 %	2.0 %	0.6 %	1.1 %	1.0 %	1.0 %
Capex / Dep	110.9 %	454.7 %	22.8 %	40.0 %	29.8 %	28.7 %	29.4 %
Avg. Working Capital / Sales	9.2 %	4.8 %	6.2 %	0.8 %	0.4 %	1.0 %	1.3 %
Trade Debtors / Trade Creditors	218.1 %	109.4 %	206.2 %	79.6 %	96.0 %	100.0 %	100.0 %
Inventory Turnover	0.0 x	0.0 x	0.0 x	40.6 x	49.3 x	48.3 x	37.1 x
Receivables collection period (days)	60	51	48	24	24	25	25
Payables payment period (days)	n.a.	n.a.	n.a.	44	36	36	37
Cash conversion cycle (Days)	n.a.	n.a.	n.a.	-36	-29	-30	-28

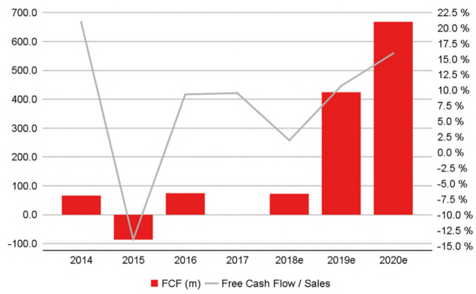
CAPEX and Cash Flow

in EUR m



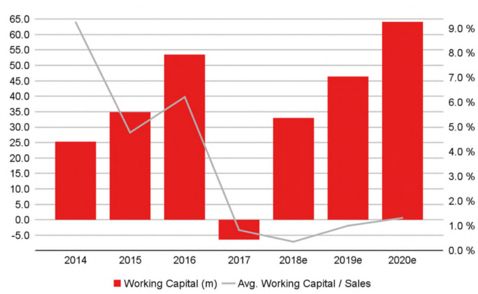
Source: Warburg Research

Free Cash Flow Generation



Source: Warburg Research

Working Capital



Source: Warburg Research

DCF model

	Detailed forecast period			Transitional period										Term. Value
Figures in EUR m	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	
Sales	5,114	5,447	5,722	6,008	6,248	6,436	6,597	6,762	6,931	7,104	7,246	7,391	7,539	
Sales change	*21.6 %*	*6.5 %*	*5.0 %*	*5.0 %*	*4.0 %*	*3.0 %*	*2.5 %*	*2.5 %*	*2.5 %*	*2.5 %*	*2.0 %*	*2.0 %*	*2.0 %*	*1.2 %*
EBIT	814	954	1,099	1,081	1,218	1,287	1,352	1,420	1,525	1,563	1,594	1,626	1,659	
EBIT-margin	*15.9 %*	*17.5 %*	*19.2 %*	*18.0 %*	*19.5 %*	*20.0 %*	*20.5 %*	*21.0 %*	*22.0 %*	*22.0 %*	*22.0 %*	*22.0 %*	*22.0 %*	
Tax rate (EBT)	*31.0 %*	*32.0 %*	*32.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	*31.0 %*	
NOPAT	562	649	747	746	841	888	933	980	1,052	1,078	1,100	1,122	1,144	
Depreciation	380	396	402	391	375	373	376	379	381	384	362	333	332	
in % of Sales	*7.4 %*	*7.3 %*	*7.0 %*	*6.5 %*	*6.0 %*	*5.8 %*	*5.7 %*	*5.6 %*	*5.5 %*	*5.4 %*	*5.0 %*	*4.5 %*	*4.4 %*	
Changes in provisions	0	0	0	0	0	0	0	0	0	0	0	0	0	
Change in Liquidity from														
- Working Capital	-8	-10	-2	1	1	1	0	0	1	1	0	0	0	
- Capex	230	230	235	240	250	283	290	298	305	313	319	325	332	
Capex in % of Sales	*4.5 %*	*4.2 %*	*4.1 %*	*4.0 %*	*4.0 %*	*4.4 %*	*4.4 %*	*4.4 %*	*4.4 %*	*4.4 %*	*4.4 %*	*4.4 %*	*4.4 %*	
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	
Free Cash Flow (WACC Model)	719	825	916	895	965	978	1,018	1,060	1,128	1,149	1,143	1,129	1,144	1,167
PV of FCF	704	757	788	723	730	694	677	661	660	630	588	544	517	9,682
share of PVs	12.25 %			35.00 %										52.75 %

Model parameter

Derivation of WACC:		Derivation of Beta:	
Debt ratio	15.00 %	Financial Strength	1.00
Cost of debt (after tax)	1.5 %	Liquidity (share)	1.00
Market return	7.00 %	Cyclicality	1.00
Risk free rate	1.50 %	Transparency	1.30
		Others	1.20
WACC	**6.65 %**	**Beta**	**1.10**

Valuation (m)

Present values 2030e	8,673		
Terminal Value	9,682		
Financial liabilities	2,200		
Pension liabilities	0		
Hybrid capital	0		
Minority interest	3,500		
Market val. of investments	1,000		
Liquidity	0	No. of shares (m)	204.8
Equity Value	**13,655**	**Value per share (EUR)**	**66.67**

Sensitivity Value per Share (EUR)

		Terminal Growth						
Beta	WACC	0.45 %	0.70 %	0.95 %	**1.20 %**	1.45 %	1.70 %	1.95 %
1.31	7.6 %	49.03	50.18	51.41	52.74	54.18	55.73	57.43
1.21	7.1 %	54.54	55.95	57.47	59.12	60.91	62.87	65.02
1.15	6.9 %	57.62	59.19	60.88	62.73	64.74	66.95	69.39
1.10	6.6 %	60.95	62.70	64.60	**66.67**	68.95	71.45	74.22
1.05	6.4 %	64.57	66.52	68.66	71.00	73.57	76.43	79.60
0.99	6.1 %	68.50	70.70	73.11	75.76	78.70	81.96	85.61
0.89	5.6 %	77.51	80.33	83.44	86.90	90.77	95.13	100.09

		Delta EBIT-margin						
Beta	WACC	-1.5 pp	-1.0 pp	-0.5 pp	**+0.0 pp**	+0.5 pp	+1.0 pp	+1.5 pp
1.31	7.6 %	47.62	49.33	51.03	52.74	54.45	56.15	57.86
1.21	7.1 %	53.57	55.42	57.27	59.12	60.97	62.82	64.67
1.15	6.9 %	56.93	58.87	60.80	62.73	64.66	66.59	68.53
1.10	6.6 %	60.61	62.63	64.65	**66.67**	68.69	70.72	72.74
1.05	6.4 %	64.64	66.76	68.88	71.00	73.12	75.24	77.35
0.99	6.1 %	69.08	71.31	73.53	75.76	77.99	80.21	82.44
0.89	5.6 %	79.46	81.94	84.42	86.90	89.38	91.86	94.34

- Expected revenue growth after 2020e reflects low longterm growth profile for telecommunication services

Consolidated profit and loss

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Sales	**3,065**	**3,716**	**3,949**	**4,206**	**5,114**	**5,447**	**5,722**
Change Sales yoy	15.4 %	21.2 %	6.3 %	6.5 %	21.6 %	6.5 %	5.0 %
COGS	2,034	2,437	2,595	2,689	3,263	3,475	3,656
Gross profit	**1,030**	**1,278**	**1,354**	**1,517**	**1,851**	**1,972**	**2,066**
Gross margin	*33.6 %*	*34.4 %*	*34.3 %*	*36.1 %*	*36.2 %*	*36.2 %*	*36.1 %*
Research and development	0	0	0	0	0	0	0
Sales and marketing	481	557	524	638	777	790	778
Administration expenses	137	182	184	185	235	245	252
Other operating expenses	0	87	58	101	0	0	0
Other operating income	204	70	58	366	-25	17	63
Unfrequent items	-7	-7	0	0	0	0	0
EBITDA	**738**	**771**	**841**	**1,253**	**1,194**	**1,350**	**1,501**
Margin	*24.1 %*	*20.8 %*	*21.3 %*	*29.8 %*	*23.3 %*	*24.8 %*	*26.2 %*
Depreciation of fixed assets	53	125	120	110	110	112	112
EBITA	**663**	**646**	**721**	**1,143**	**1,084**	**1,238**	**1,389**
Amortisation of intangible assets	46	90	74	184	270	284	290
Goodwill amortisation	0	0	0	0	0	0	0
EBIT	**617**	**556**	**647**	**959**	**814**	**954**	**1,099**
Margin	*20.1 %*	*15.0 %*	*16.4 %*	*22.8 %*	*15.9 %*	*17.5 %*	*19.2 %*
EBIT adj.	**431**	**556**	**647**	**629**	**814**	**954**	**1,099**
Interest income	4	13	5	3	2	2	2
Interest expenses	29	27	31	44	45	45	45
Other financial income (loss)	-13	4	256	12	0	0	0
EBT	**579**	**535**	**367**	**891**	**771**	**911**	**1,056**
Margin	*18.9 %*	*14.4 %*	*9.3 %*	*21.2 %*	*15.1 %*	*16.7 %*	*18.5 %*
Total taxes	132	169	188	242	239	292	338
Net income from continuing operations	**447**	**367**	**179**	**648**	**532**	**619**	**718**
Income from discontinued operations (net of tax)	0	0	0	39	0	0	0
Net income before minorities	**447**	**367**	**179**	**687**	**532**	**619**	**718**
Minority interest	1	0	0	39	150	183	194
Net income	**447**	**367**	**179**	**648**	**382**	**436**	**524**
Margin	*14.6 %*	*9.9 %*	*4.5 %*	*15.4 %*	*7.5 %*	*8.0 %*	*9.2 %*
Number of shares, average	205	205	204	204	204	204	204
EPS	**2.18**	**1.79**	**0.88**	**3.18**	**1.87**	**2.14**	**2.57**
EPS adj.	1.35	1.99	2.23	2.35	2.02	2.29	2.72

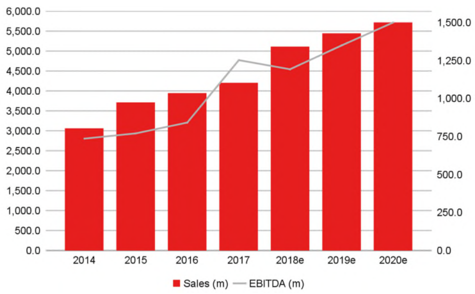
*Adjustments made for:

Guidance: 2018: Revenues > EUR 5.2bn, EBITDA c. EUR 1.2bn

Financial Ratios

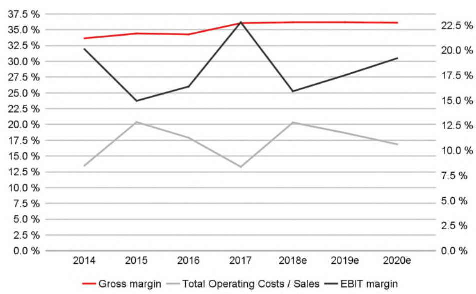
	2014	2015	2016	2017	2018e	2019e	2020e
Total Operating Costs / Sales	13.5 %	20.4 %	17.9 %	13.3 %	20.3 %	18.7 %	16.9 %
Operating Leverage	6.3 x	-0.5 x	2.6 x	7.4 x	-0.7 x	2.6 x	3.0 x
EBITDA / Interest expenses	25.0 x	28.4 x	27.0 x	28.3 x	26.5 x	30.0 x	33.4 x
Tax rate (EBT)	22.7 %	31.5 %	51.2 %	27.2 %	31.0 %	32.0 %	32.0 %
Dividend Payout Ratio	27.5 %	39.1 %	91.0 %	26.7 %	34.5 %	32.9 %	29.8 %
Sales per Employee	467,933	558,749	593,825	632,527	769,023	819,098	860,451

Sales, EBITDA
in EUR m



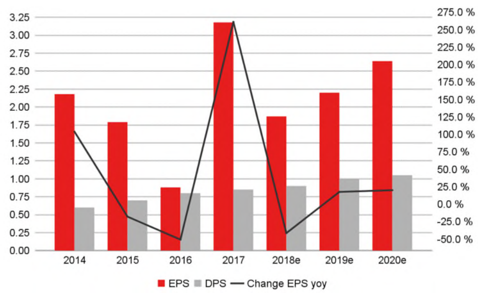
Source: Warburg Research

Operating Performance
in %



Source: Warburg Research

Performance per Share



Source: Warburg Research

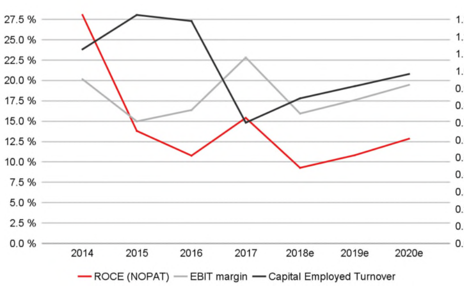
Consolidated balance sheet

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Assets							
Goodwill and other intangible assets	1,363	1,482	1,457	4,973	4,803	4,619	4,429
thereof other intangible assets	385	344	370	1,393	1,223	1,039	849
thereof Goodwill	977	1,138	1,088	3,580	3,580	3,580	3,580
Property, plant and equipment	695	665	655	747	777	805	833
Financial assets	730	917	1,043	752	752	752	752
Other long-term assets	0	0	0	0	0	0	0
Fixed assets	**2,788**	**3,064**	**3,156**	**6,472**	**6,332**	**6,176**	**6,014**
Inventories	43	43	39	45	57	61	64
Accounts receivable	217	256	284	290	350	373	392
Liquid assets	51	84	102	239	216	317	822
Other short-term assets	575	431	493	560	910	930	904
Current assets	**885**	**813**	**918**	**1,134**	**1,533**	**1,680**	**2,182**
Total Assets	**3,673**	**3,878**	**4,074**	**7,606**	**7,865**	**7,857**	**8,197**
Liabilities and shareholders' equity							
Subscribed capital	205	205	205	205	205	205	205
Capital reserve	369	372	378	2,709	2,709	2,709	2,709
Retained earnings	461	696	724	1,204	1,204	1,204	1,204
Other equity components	169	-124	-109	-127	82	335	655
Shareholders' equity	1,204	1,149	1,197	3,991	4,200	4,453	4,773
Minority interest	1	1	0	59	83	109	135
Total equity	**1,205**	**1,150**	**1,198**	**4,051**	**4,283**	**4,562**	**4,909**
Provisions	188	153	117	213	225	230	230
thereof provisions for pensions and similar obligations	0	0	0	0	0	0	0
Financial liabilities (total)	1,568	1,737	1,964	2,189	2,010	1,712	1,710
thereof short-term financial liabilities	30	29	422	248	50	50	50
Accounts payable	360	400	374	412	490	463	486
Other liabilities	353	437	421	741	857	890	862
Liabilities	**2,469**	**2,728**	**2,876**	**3,555**	**3,582**	**3,294**	**3,288**
Total liabilities and shareholders' equity	**3,673**	**3,878**	**4,074**	**7,606**	**7,865**	**7,857**	**8,197**

Financial Ratios

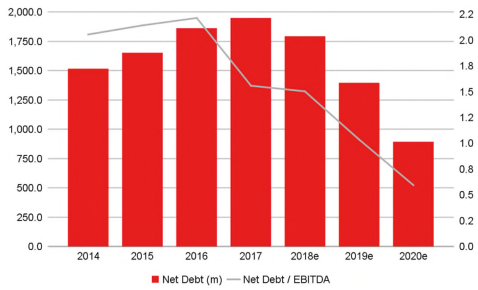
	2014	2015	2016	2017	2018e	2019e	2020e
Efficiency of Capital Employment							
Operating Assets Turnover	5.3 x	6.8 x	6.7 x	6.4 x	7.5 x	7.1 x	7.2 x
Capital Employed Turnover	1.1 x	1.3 x	1.3 x	0.7 x	0.8 x	0.9 x	1.0 x
ROA	16.0 %	12.0 %	5.7 %	10.0 %	6.0 %	7.1 %	8.7 %
Return on Capital							
ROCE (NOPAT)	28.0 %	13.8 %	10.8 %	15.4 %	9.3 %	10.8 %	12.7 %
ROE	59.2 %	31.2 %	15.3 %	25.0 %	9.3 %	10.1 %	11.4 %
Adj. ROE	36.7 %	34.6 %	38.7 %	18.4 %	10.1 %	10.8 %	12.0 %
Balance sheet quality							
Net Debt	1,517	1,653	1,863	1,950	1,794	1,395	888
Net Financial Debt	1,517	1,653	1,863	1,950	1,794	1,395	888
Net Gearing	125.9 %	143.8 %	155.5 %	48.2 %	41.9 %	30.6 %	18.1 %
Net Fin. Debt / EBITDA	205.7 %	214.4 %	221.6 %	155.6 %	150.3 %	103.4 %	59.1 %
Book Value / Share	5.9	5.6	5.9	19.6	20.6	21.8	23.4
Book value per share ex intangibles	-0.8	-1.6	-1.3	-4.8	-3.0	-0.8	1.7

ROCE Development



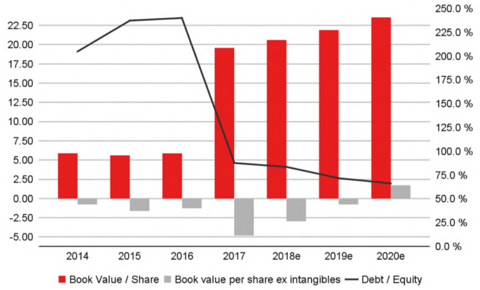
Source: Warburg Research

Net debt
in EUR m



Source: Warburg Research

Book Value per Share
in EUR



Source: Warburg Research

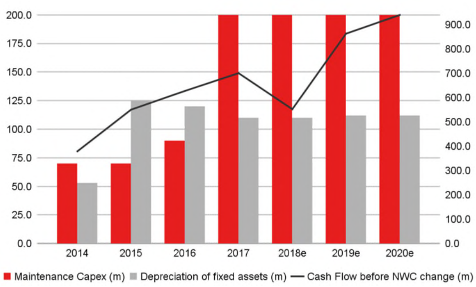
Consolidated cash flow statement

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Net income	447	367	179	687	532	619	718
Depreciation of fixed assets	53	125	120	110	110	112	112
Amortisation of goodwill	0	0	0	0	0	0	0
Amortisation of intangible assets	50	90	74	184	270	284	290
Increase/decrease in long-term provisions	0	0	0	0	0	0	0
Other non-cash income and expenses	-170	-32	255	-280	-360	-150	-175
Cash Flow before NWC change	**380**	**550**	**628**	**701**	**552**	**865**	**945**
Increase / decrease in inventory	2	0	3	-5	-12	-4	-3
Increase / decrease in accounts receivable	-81	-39	-28	-6	-60	-23	-19
Increase / decrease in accounts payable	100	43	-29	36	80	-27	23
Increase / decrease in other working capital positions	54	221	-86	0	0	0	0
Increase / decrease in working capital (total)	75	226	-141	25	8	-53	2
Net cash provided by operating activities [1]	**455**	**776**	**487**	**726**	**560**	**812**	**947**
Investments in intangible assets	-29	-40	-45	-55	-100	-100	-100
Investments in property, plant and equipment	-33	-90	-110	-120	-140	-140	-140
Payments for acquisitions	-1,302	0	-266	-664	0	0	0
Financial investments	0	0	13	0	0	0	0
Income from asset disposals	25	-636	0	0	0	0	0
Net cash provided by investing activities [2]	**-1,350**	**-766**	**-423**	**-898**	**-230**	**-230**	**-235**
Change in financial liabilities	1,034	169	227	225	-179	-298	-2
Dividends paid	-77	-123	-143	-159	-173	-183	-204
Purchase of own shares	-39	0	0	-77	0	0	0
Capital measures	348	0	0	0	0	0	0
Other	-361	-23	-127	323	0	0	0
Net cash provided by financing activities [3]	**905**	**23**	**-43**	**312**	**-352**	**-481**	**-206**
Change in liquid funds [1]+[2]+[3]	**10**	**33**	**21**	**140**	**-23**	**101**	**506**
Effects of exchange-rate changes on cash	-1	1	-4	0	0	0	0
Cash and cash equivalent at end of period	**52**	**84**	**102**	**242**	**216**	**317**	**822**

Financial Ratios

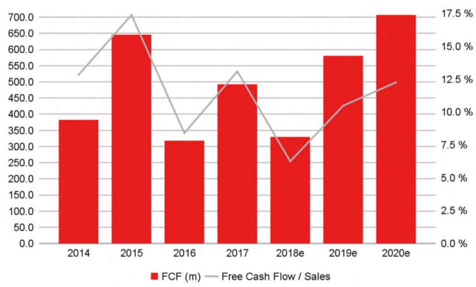
	2014	2015	2016	2017	2018e	2019e	2020e
Cash Flow							
FCF	383	646	318	493	330	582	712
Free Cash Flow / Sales	12.8 %	17.4 %	8.4 %	13.1 %	6.2 %	10.5 %	12.3 %
Free Cash Flow Potential	536	533	563	849	755	858	963
Free Cash Flow / Net Profit	87.9 %	176.2 %	185.5 %	85.0 %	83.7 %	131.1 %	134.8 %
Interest Received / Avg. Cash	9.1 %	19.4 %	5.2 %	2.0 %	0.9 %	0.8 %	0.4 %
Interest Paid / Avg. Debt	3.0 %	1.6 %	1.7 %	2.1 %	2.1 %	2.4 %	2.6 %
Management of Funds							
Investment ratio	2.0 %	3.5 %	3.9 %	4.2 %	4.7 %	4.4 %	4.2 %
Maint. Capex / Sales	2.3 %	1.9 %	2.3 %	4.8 %	3.9 %	3.7 %	3.5 %
Capex / Dep	62.6 %	60.3 %	80.1 %	59.5 %	63.2 %	60.6 %	59.7 %
Avg. Working Capital / Sales	-3.3 %	-3.1 %	-2.3 %	-1.8 %	-1.8 %	-1.3 %	-0.7 %
Trade Debtors / Trade Creditors	60.1 %	63.9 %	76.0 %	70.4 %	71.4 %	80.7 %	80.6 %
Inventory Turnover	47.7 x	57.3 x	65.7 x	60.2 x	57.4 x	57.4 x	57.5 x
Receivables collection period (days)	26	25	26	25	25	25	25
Payables payment period (days)	65	60	53	56	55	49	49
Cash conversion cycle (Days)	-59	-55	-48	-51	-49	-43	-43

CAPEX and Cash Flow
in EUR m



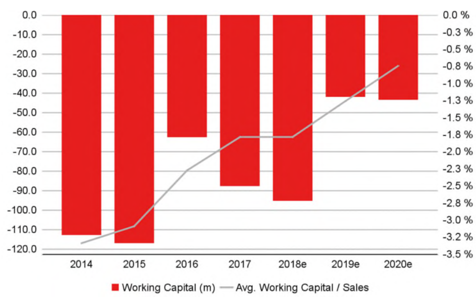
Source: Warburg Research

Free Cash Flow Generation



Source: Warburg Research

Working Capital



Source: Warburg Research

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"-"	**Rating suspended:**	The available information currently does not permit an evaluation of the company.

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Rating	Number of stocks	% of Universe
Buy	115	56
Hold	88	43
Sell	3	1
Rating suspended	0	0
Total	**206**	**100**

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING …

… taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	33	67
Hold	16	33
Sell	0	0
Rating suspended	0	0
Total	**49**	**100**

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