Bayer AG

Capital Markets Day

5 December 2018

Opening Remarks

Oliver Maier

Head of Investor Relations, Bayer AG

Before we start, as always I have to mention the cautionary language that applies to all the material that we present today and that has been distributed today. That language applies also to all the presentations in the afternoon and the workshop. We didn't have any particular disclaimers in these presentations, just to make sure that that disclaimer also applies to all the workshops.

See disclaimer

And with that, I am pretty much done with my housekeeping items, and with no further ado I hand it over to you, Werner.

Delivering Value Creation

Werner Baumann

CEO, Bayer AG

Thank you, Oliver. Good morning, everybody, also on behalf of all of my colleagues who are present with us here. It is a special pleasure for me also to welcome for the first time at such an event our new colleagues. We have a number of new Board colleagues, as you have seen. Certainly you will have a chance to interact with all of them today. Wolfgang Nickl, our CFO, has been with us now for about half a year. We have Heiko Schipper, who runs our Consumer Health business and has been with us also since April 1. At least since April 1 he is in charge of Consumer Health. We have a most recent addition with Stefan Oelrich, so don't spare the detailed questions to Pharma. He has been here already for just about five weeks.

And then under Liam's leadership we have a fairly good representation of our Crop Science executive leadership group here, who are going to be with you in the afternoon and talk about all our exciting prospects for our Crop Science business. We have Brett Begemann, our Chief Operating Officer you know very well from the Monsanto times. Back here on the left we have Bob Reiter, our Head of R&D. We have Jim Swanson, our CIO of the business and the mastermind behind the digitalisation of our business, probably beyond Crop going forward. We have Mike Stern and Sam Eathington from Climate Corp; you are going to love their presentation later on today. Michael Schulz, our CFO; Jesus Madrazo, our Head of Sustainability and Corporate Affairs in the business; and Frank Terhorst, our Head of Strategy of the Crop business.

Beyond the colleagues that are presenting we also have Kemal Malik, our Head of Innovation, here with us today and our fellow Board member.

Without further ado, we have accomplished a lot and we worked very, very hard in 2018, but we are not happy at all with the recent development of the company and the stock. It did not meet your expectations, the capital market expectations, and we have seen the massive overhang of the glyphosate litigation, which I will come back to very briefly later on.

Your disappointment is our disappointment, and all of us will do everything we can in order to bring the value of the company back into the stock. Today we go into the details of our plans and what we want to do for the next years to come, and we will also provide the financial framework not only for 2019 but also for our mid-term aspirations.

You have seen the announcement of the company late last week on Thursday, November 29, and you may wonder why we announced such a comprehensive programme, actually as a matter of fact the biggest ever in the corporate history prior to the Capital Markets Day. We would have loved to share it only today with you, but due to capital market regulations it was not possible, because the order of magnitude of change is so big that we were obliged to communicate immediately due to our ad hoc obligations. But today we have plenty of opportunity to go into the details of our plans and the programmes that stand behind the significant performance enhancements that we will see over the next years.

So with that, we are and we continue to be very excited about the prospect of the company, and with that let me now touch briefly on 2018 before I go into our market, our businesses, the prospects going forward and the main levers we see for value creation for the next years to come.

We are and continue to be on track with the guidance we have given for 2018. We reiterated that as part of our Q3 guidance. The truth be told, the going got tougher during the year, but we put a comprehensive plan and programme in place in order to ensure that we can and will deliver on the promises we made earlier in the year. I think we did a fairly good job in crystallising the value of the divestiture of our Covestro stake; €2 billion this year alone, and overall we generated €9 billion net in shareholder value by actually monetising our remaining stakes after the IPO in 2015, and I think that is a great success.

We are also doing better than expected with the de-levering of the company already in 2018. We had anticipated to be at about €39 billion net debt by the end of the year, and then we progressively got more comfortable with our cash flow generation. With that it went from €37 billion to roughly €36 billion in net debt we expect by the end of the year.

Glyphosate is yet another story, quite frankly. We were very excited to actually finally get to the point of closing our acquisition of Monsanto in June. You know that we had to wait under the hold separate obligations until the middle of August, until we could really start to interact with our colleagues and start the integration event. Even beyond the 10 August Johnson verdict where we as a company could not say anything because we were still hands off, and essentially as unrelated parties the way we have to behave. Then this massive verdict that was unexpected hit us, and it had a really devastating effect on our stock.

I will only briefly touch on glyphosate right now because there is no new news, and we would really love to actually take the time we have together today to dive into all the other topics that we have prepared for you, and then we go into an update of all of you prior to the next trials that are scheduled for next year, but today there is actually no value in spending a lot of time on it because of a lack of news.

Let me say the following. As we have said many, many times, we as a company, both legacy Monsanto and Bayer, I personally stand firmly behind the product. It is safe for use with the intended applications. It is very efficacious. It is a critical agent for herbicide control for farmers around the world, that is wider for them to have access to, and we can only reiterate that it is safe

and more than 800 studies have confirmed that. Also the most recent reanalysis that was done by all major regulatory bodies around the world, ranging from Australia, New Zealand, Japan to the US EPA, and the European agencies that have reconfirmed the safety of the product and at the same time that it is not carcinogenic.

With that, we stand firmly behind the product and will vigorously defend ourselves going forward. We have had one single verdict in the first instance that we have filed an appeal for, and we are very, very intensively preparing – as you can imagine – now for the next cases that will actually go to trial in early 2019. We are now joining forces between our litigation group and the vast expertise we have, in particular in product litigation cases, as you know, with our Pharma business. We are also preparing the next cases; with joined forces and our external legal support. We believe that our chances to prevail beyond the science and the fact are very, very good. Nothing is certain in life of course, but we are quite optimistic going into 2019 as the next cases are going to be litigated. The first two are going to be in Q1 in late February and early March. There are going to be three additional cases that are going to be tried in Q2, and then in the second half of the year there are going to have roughly a handful of additional cases. Again, we will update you in due time; not today, but in due time going forward.

We continue to grow ahead of the market as our predecessor legacy companies have done before. In our Crop business it is hands down the best business in the industry, also with market leading profitability. The issue we faced last year in Brazil in our legacy Crop business has been fully remediated, and we have enjoyed very healthy growth in 2018. Also the onset of the season, now going into the planting season 18/19 is well on track, and we do have a very successful head start into the integration. Liam will cover quite a bit of the details in his presentation, so I will only set the frame for most of the topics I am going to touch on.

Pharma continues to grow at the rate of market. We have had some setbacks with our cGMP remediation activities and with that lack of product availability. The remedial activity has come to an end by the end of this year. We are awaiting the re-inspection of the FDA in March 2019, and then during the year 2019 we will progressively catch-up also in terms of our supply ability for the businesses both in Consumer Health and Pharma.

We are very proud to have obtained the most important approval in our life cycle management programme, with Xarelto being now indicated in CAD and PAD. It is by far the biggest opportunity in the NOAC space beyond the SPAF indication. We are uniquely positioned to take advantage of it, because Bayer and Xarelto – and of course our partner J&J in the US – are the only companies that will benefit from that indication that has a patient potential that is actually higher than that of SPAF, with about 30 million patients out there.

We have also made some good progress in larotrectinib and darolutamide in our Oncology business, with headline data on darolutamide that will be shared with greater detail – we are very excited about them – early next year. We have achieved the approval of larotrectinib in the first markets, and I will come back to that in a few minutes.

Consumer Health is all about growth acceleration and actually implementing our turnaround plans. We have done some of that already in 2018, and Heiko will cover that. We have also returned now to growth in Q3, but still there is some way to go in order to bring this business back to old glory over the next few years. Of course, we have made a number of decisions on our portfolio to streamline our brand portfolio, and narrow it down to the core OTC brands that we are the best owners of and where we can win in the long term.

We are very well positioned to deliver significant value creation over the next years to come. First of all we are in the right markets, and we are doing the right things in terms of bringing value to

customers, consumers and patients, also in line with our mission, 'Science for a better life'. We do cater to significant societal needs that are going to grow over the next years to come, and we do that by focusing our activities in the areas of health and nutrition. With that we can also leverage the company strengths that we have built over many, many decades, and with that we can bring the very, very needed innovation to our customers and to society going forward. With that we will achieve both value for all our stakeholders and our shareholders, and of course the value will translate into profit and appreciation of the company. We will do this by maintaining and further strengthening something that is critically important to us and that is societal contract, which means our license to operate that is built on acceptance of what we do and trust into the company that we are.

You will see some of these drivers in many, many other presentations, I think. We are better positioned than most to take advantage of two major drivers that are going to be driving our businesses not only for the next three to five years but actually for the next decades to come.

First of all population growth means that more people need to be fed, and with that nutrition, healthy, affordable and safe nutrition is key in order to feed a growing population that is also going to change its dietary customs going forward. We are going to have more than two billion additional lives on this planet by 2050, which makes for more than 9 billion people who are going to live in 2050.

At the same time, the population continues to age. The people who are going to be 60 years and older in about 30 years will have doubled. One out of every five people that are going to live in 2050 is going to be 60 years or older, and that also means that the need for better healthcare to sustain health is going to increase over time, and we are catering to both self-care and also the medical part of the indication – so prescription medicines – with our businesses going forward. All of that needs to be done with less resources that are going to be available. The per capita acreage that is available is going to shrink significantly over the next decades to come. The output has to be increased by roughly 50% in order to feed the world on a smaller footprint in terms of acreage that is going to be available per capita, and the sustainability requirements are going to increase significantly, and they are further driven by of course global trends like global warming that put a lot of strain on agriculture going forward.

Our markets are characterised by the following criteria. First of all there is size of the markets, and you see how big these markets are ranging from; roughly €90 billion in the Ag Inputs industry to almost a trillion Euros if you look at the pharmaceutical market, and all of them have the potential to grow above GDP in the long run. These markets are characterised by high entry barriers, because all of them are regulated markets so new entrants are not – it is actually not that easy for new entrants to come into the markets as new competitors, even with highly relevant innovation. In many cases they have to go through us, the incumbents, in order to actually monetise the innovation they bring to the market.

Secondly, all of these markets are highly profitable markets, and we believe with the competencies we have and the market positions we have that we can lead in these markets, and be successful in defending our leadership over the next decades to come.

You know these businesses very well, and there is much more detail to come in the course of this morning. Crop is a €19 billion business combined after the divestitures also to BASF. We are by far the biggest and the best crop player in the world. The revenue actually equates to roughly 43% of Group revenue going forward, and we are hands down across virtually all of the features and characteristics of the business, the market leader in the industry. By the way, it is not only that we are that leader today; our job and our aspiration is actually to create the differentiating distance

between us and the second to third to market, and make it bigger than it is already today over the next decades to come.

Pharmaceuticals is a little bit smaller; €17 billion in top line, roughly 38% of Group revenue. It has been one of the fastest growing pharmaceutical companies over the last five or six years, with growth rates at CAGR that was close to double digit. This year is a little bit slower but we are also looking forward to good and sustained growth for the next – many years to come, based on the life cycle management programmes we have in place, the two top selling drugs that drive a lot of our sales growth – Xarelto and Eylea – and of course the pipeline that we are going to bring to market over the next years to come.

We have a strong focus in a number of therapeutic areas, so a very strong heritage area, certainly our cardiovascular business; we are the market leader in Cardiology, we are the market leader in Women's Health. We continue to invest heavily into an emerging business to get it to sustainability. That is our Oncology business. We have a significant and very attractive position in emerging markets that is going to drive our long term growth prospect well into the next decade, and that is very much driven by our strong – significantly above our global position, our number five position we hold in China.

Consumer Health we built into a global leader over the last 15 years, both organically and inorganically. I have to say that we are not happy or we are very unhappy – I think that is the right way to say – with the way the acquisition of the Merck OTC business went. We are in correction mode; we are in turnaround in the US. Heiko will give you some detail with the very comprehensive plan that has been developed under his leadership, but the fundamentals and the quality of our business are really, really strong. We have a highly concentrated portfolio of big, mega-selling brands. 16 above 100 million – let's say a once in a century brand like aspirin that continues to grow after roughly 120 years that it has been in the market, and we are also benefitting from the very, very strong endorsement of our Bayer brand, not only to the Consumer Health business but here in particular in terms of the price premium that we are able to achieve.

Very briefly before I go, I will fast-forward the transformation of the company that we have accomplished over the last 15 years. We have built a business that is now fully concentrated on the life sciences. That means that a lot of the activities that were part of the group 15 years ago have gone into other hands or have become quite successful separate companies, also listed companies like Lanxess or Covestro that all have done very well.

As part of our November 29 announcement we have communicated a number of decisions that we are going to further focus the company. We believe that we are no longer the best owner of our Animal Health business. It is a business that holds the number five position in the industry, the number three position in the companion animal segment of the industry. It is highly profitable. It continues to grow very nicely more or less in line with market, some years above, some years a little bit below, and it has been defending itself very well, but in order to fully exploit the potential this business has it needs further investment. We are not the right owner anymore because we cannot invest into animal health, looking at the other investment priorities we have inside of the companies, most predominantly in Pharmaceuticals on one hand, and also in Consumer Health and our Crop business on the other hand, with that, the decision to actually exit this business. The mode of exit is still to be determined. We are only at the start of this process with the announcement last week, and as a matter of fact I am going to be at the kick-off tomorrow when we start the process together with our Animal Health people going into 2019.

Second, we still own 60% of an infrastructure service company by the name of Currenta that actually serviced our chemical compounds in Germany. It was a company that serviced all of our activities at the time. We opened our chemical parks to third parties and of course we divested of a

lot of our chemical activities, and with that today we only take roughly 15-20% of the services of Currenta, but we still own 60%. It is also a great company. It has significant growth opportunities, but it is actually not our strategic focus anymore, and with that we also need to find a new owner for our 60% share going forward. On this one we are further advanced than on Animal Health, so the process had been prepared and started earlier this year. We announced where the company is going going forward, and we are quite hopeful that within the next few months we are going to conclude this process with the purchaser of our 60% stake that is then going to develop Currenta going forward, and in a more meaningful way than we are able and willing to do.

Last but not least some of the brand divestitures: Coppertone and Dr Scholl's. Heiko will go into some more detail also here. We are at the beginning of the process and we will conclude both divestitures during 2019.

Now let me come to the five value levers that are going to drive value for our shareholders, for our consumers, patients and broader stakeholders alike going forward.

First of all, let me talk about innovation. This is a busy slide, so I will only focus on the three areas that we are going to drive forward going forward beyond the level of pipeline, the need that is there for innovation in our different businesses, and also the resource that we deploy. There is more than €6 billion annually that we invest in R&D across the enterprise.

The focus areas are first of all that we have to be more agnostic to where innovation comes from, and that means across all of our businesses, Pharmaceuticals and Consumer Health in particular, a stronger external focus in bringing innovation and technologies into the company. Secondly, to further advance our digital agenda by leveraging computational science and also the digital scale across the entire value chain. Last but not least also, in line with our mission, 'Science for a better life,' that we venture into so far uncharted territory, where technically and conceptually there are solutions for people that are very ill. Some companies have to dare and go into it and at least try, even though the odds of success are very, very low.

Let me now touch on examples for all three of them. First of all, bringing in external innovation. We have done some of that. We have done some of that very successfully but we do need to do more of it in order to further boost our innovation, and with that our growth prospects going forward. A good example for it is actually that we succeeded last year barely 12 months ago in securing larotrectinib and its follow-up compound from Loxo, and here we are 12 months later and we do have an FDA approved, highly differentiated product that also differentiates very positively to its closest competitor in a new class of cancer compounds that has significant pan-tumour activity. We believe that it is good for roughly €750 million in peak sales going forward.

Very importantly, it also shows once more that this is what we bring to the table. We are for many companies very good, and actually the partner of choice, which is also fed back to us from many, many of our partners that we cooperate with in academia, small, mid and large companies in the biotech pharma, but also in the Crop and in the Ag space.

Secondly, the advancement of our digital agenda. You will look back to this slide later today and say, 'What a few boring comments Baumann made after we have seen what the real world in digital is about,' when you have gone through the afternoon and you have listened to Brett, Mike Stern, Sam Eathington and our colleagues, because if you want to see a highly digitalised business in action that is what you are going to see this afternoon. But we are also doing a lot in all of our other businesses, first of all in digitising customer experience. Of course here the business that is the most suited and the most important to actually lever that competency is our Consumer Health business. Just to give you a glimpse of what we are doing, what we have already done and what we

are going to build on. If I look at our business in Japan our business in Japan does not have a standard bricks and mortar part of it anymore. It is fully digital; it is a fully online business.

Secondly, if I look at where growth comes from these days and how we lever our competencies in that area, our online market share that Heiko is going to further elaborate on later on in the US is just as big as our offline market share in the US. It has been contributing significantly to growth, still on a small scale but this is going to build very dynamically, I could almost say exponentially, going forward.

Secondly, a very large part of our business in China is digital today. We continue to build these businesses to scale as we move our agenda in Consumer Health into next gear with the programme that we have in place.

For Crop Science it goes way beyond that. We are looking at the entire value chain, and the most interesting one where you can also see the emergence of new business models is what our Crop colleagues are going to share with you later today. There is no doubt that in a number of areas we will see the reduction of input factors, because we can treat diseases in the field in a much more targeted way rather than spraying the entire field. There are also examples where actually by the use of some of our compounds we can increase yields and we can increase better economies for farmers by the higher use of some of our inputs factors, in this case fungicides, and with that we also come to a more outcome-oriented business model where we can give guarantees or reinsurances of a certain outcome with the intelligence we have and some of the predictive models that tell a farmer what he is going to get out of the application of incremental products from us, and how it translates into value for him.

Last but not least, we just got a very, very nice award in an area where not many people would expect us to get it, and that is that our Italian pharmaceutical plant in Garbagnate had been awarded the award of one of the most digitally advanced pharmaceutical plant operations in the world. Actually as one of nine it is going to be profiled in the upcoming World Economic Forum in Davos in early 2019.

Let us talk about some of the moonshot projects where the technology is there but nobody has dared so far in many areas to venture into it because it is so high risk, but the reward is very, very high. If you can eventually take diseases that you can only treat today but where you have no cure, but where you have at least a chance to get from treatment to cure going forward.

We have a joint venture with Emmanuelle Charpentier's company CRISPR Therapeutics. The joint venture is called Casebia, and in that joint venture that actually focuses on gene editing technologies, we have a chance to actually find cures for some genetically caused diseases such as haemophilia, or also monogenetically caused forms of blindness. It is very, very exciting, and actually very engaged us but also CRISPR in advancing the company.

Secondly – and way further advanced than we thought we were going to be by now – BlueRock is one of the hottest newly-founded companies in the biotech space. BlueRock deals with the application of pluripotent stem cell therapies in a number of areas and the recreation of heart tissue or actually in treatment and potentially cure of Parkinson's disease. We think that we are very, very close maybe to the first I&D that may come in the not too distant future, which means maybe even before the end of the year.

Last but not least, an example in the Crop space. Some very interesting approaches, where we can use microbial activity potentially to further enhance microgen in large acre crops, which is a win win win. It is a win for farmers because they would have to apply substantially less, we could say up to one third of fertiliser going forward. It is a significant win for the energy footprint if you look at fertiliser accounting for roughly 2% of total global energy consumption, and of course it is a

major win for the environment if you look at nitrates and what it means in order to get it out of the store and the water going forward. The only ones who would be losing, of course, is the fertiliser industry going forward. We would be at the winning end as well with our business if successful, because there is a huge value pool that we could tap into beyond our existing business. With that we would really open up new sources of value creation for our shareholders.

There are a few more things that are not on that slide here. We are also looking at some very transformational things in the area of cancer that we are working on, in terms of establishing new joint ventures. Stay tuned; there is more news coming.

What is our 2022 programme all about? First of all, if you look at the major value levers in this specific area in terms of operational effectiveness and efficiency, for Crop Science it is all about reaping the benefits of the integration because we have €1 billion in bottom line contribution that we are going to generate from the integration going forward over the next four years.

For Pharma it is a safe to invest programme. Number one, we are reconfiguring our R&D approach by taking down our standing R&D organisation, and with that we are freeing up money to reinvest into more external collaboration. We are also building up the smaller group with high level competence in the hotspots of pharmaceutical innovation, to a large extent in the US. We have also made a very painful decision, and that means that we decommission our haemophilia Factor VIII plant, because given our prospects and the prospective over the next 10 years we just do not have a chance to really fill up the capacity of two plants. With that there is also significant write down of that brand new plant.

For Consumer Health it is all about actually getting €500 million out of the business to reinvest, and at the same time restore profitability over the next years. That is what Heiko is going to cover.

Last but not least, very importantly I mentioned the most comprehensive programme in the company's history. We are going to take 12,000 of our positions out over the next years in order to drive company performance and also profitability. It is a significant lever to actually contribute to the margin improvement over the next years, and on top of that we have all of the portfolio measures that are going to come on top with the people that are going to leave Bayer with the businesses that are going to be divested off. Overall we look at a total contribution of €2.6 billion going forward. Wolfgang is going to go into more detail in the next presentation.

Capital allocation; we are going to generate a free cash flow of about €23 billion over the next years to come. With that, we are going to look at three areas for capital allocation. First of all, very, very importantly, shareholder return; cash returns, other means of shareholder return that Wolfgang is going to cover so I am not going to steal his thunder. Secondly, to de-lever the company to a level of €26-28 billion excluding divestiture proceeds in the next years to come. And then of course reinvestment in order to further strengthen our innovation and with that value creation potential going forward. Also some smaller, bolt-on acquisitions in order to strengthen our pipelines and our growth profile over the next years to come.

Close to last, Bayer's brand is one of the most positive – it is actually the most valued brand in healthcare, and with that also in life sciences. It stands for quality, trust, reliability, and it also stands for us as a company operating with the highest ethical standards in terms of corporate responsibility, but also in terms of sustainability. Liam is going to cover what we are going to do in further shaping our profile as a company that focuses on sustainability, actually very much in Crop and what we are going to do there, but also beyond that with the many access programmes that we are doing in the eradication of tropical diseases on one hand, or as the leader in women's health in terms of family planning, in particular in the emerging markets where actually the women in

families are the most important family members to take families out of poverty. Family planning is a key cornerstone to doing so.

The brand also has strong endorsement value. As I mentioned before, the likelihood of buying a product is substantially higher if it carries a Bayer brand, and we are also able to generate price premia with the endorsement of the brand.

Wolfgang is going to cover the financials. Sales growth, roughly 4% CAGR going forward. EBITDA more than double that, with 9% CAGR. Core EPS is going to grow by 10%, and our free cash flow is going to be close to 20% in CAGR over the next four years to come.

With that, summing it up, my priorities, our priorities are number one to achieve our operational targets that we are sharing with you today. Secondly, to integrate and successfully build further leadership differentiation in our Crop Science business. Third, the continuation of the strengthening of our innovation pipeline, both for external sourcing but also by further building up our internal competencies. The turnaround plan in Consumer Health with the growth that we want to see come back into the business in the next years. A further focus and streamlining, as we have announced, with some of the divestitures, and last but not least the very comprehensive adjustment programme that we just announced, and that Wolfgang will cover now also in the next presentation.

With that, thanks a lot for your attention, and I hand it over to Wolfgang.

Financial Targets through 2022: Focus on Value Creation

Wolfgang Nickl

CFO, Bayer AG

Thank you, Werner. Good morning everybody here in the room. Good morning on the webcast, for all folks out there in the world. My name is Wolfgang Nickl. I joined a couple of months ago, seven months ago. It feels like an eternity. I am really, really happy to be here. I am excited to be at Bayer. I think we have a great story, and I want to share with you today a couple of the details on a) how we create value, not only until 2022 but beyond, and how do the financial targets look like that are associated with that, and how we are going to achieve them by 2022.

Like I said, we are looking at value creation, and as the heading says we are looking not only at 2022. We are looking at setting ourselves up in a way that we can sustainably grow our business also beyond that, and we are very, very focused on execution. I look at the situation as a phased approach, and as Werner said in his remarks we are at the point of having completed the portfolio activities in the company. With the announcement last week we are at something that we would call a target portfolio, very, very focused on health and nutrition. Now comes the phase where we focus on value creation. We create value through sustainable growth, preferably ahead of the market, and we underpin that with very much – a very big investment in innovation. We are spending about €6 billion on R&D every year.

The second element of value creation is of course enhancing our profitability. The Bayer 2022 program has already been mentioned, which includes synergies and further efficiencies to increase the bottom line, and to be able to reinvest further in innovation. That all comes paired with strong cash generation.

You have just seen the numbers; I will repeat them and I'll get into more detail as we go through the presentation. Sales, core EPS, free cash flow CAGR at 4%, 10% and 18% respectively. That creates a strong cash flow that, along with the proceeds from the divestments, we will use to grow our dividend. We are committed to de-lever our balance sheet. 2022 we are looking at something between €26-28 billion in net financial debt, depending on the exchange rate. With the EBITDA we will have at that time we believe that we will be back in the A category. Our leverage will be just over two at that point in time.

And then we will use some of the free cash flow and the proceeds from the divestments to continue to invest, be it bolt-on acquisitions, be it investments in our Leaps initiative, or be it investments in in-licensing opportunities.

I will just use really one chart to look back to 2010. It is a period where we have focused our portfolio. You see the logos, the Merck acquisition, the IPO of Covestro, and this year we closed the acquisition of Monsanto which we believe will be very, very transformative. You also see that while we had some turbulent times, there was steady growth throughout that period. If you look at the CAGR from 2010 to 2018 pro forma numbers, sales grew in average 3%, profitability 6%, and you can see that we were able to increase the dividend by even 8% every year.

I said we are at the tail end of our portfolio measures. You have just heard about the three measures that we take; Animal Health, Currenta and then the two categories in Consumer Health. I won't repeat all the strategic rationale. I wanted to add a little bit of colour. You should know that Currenta, although we only own 60%, is fully consolidated in our financials. That's very important. You should also have an indication of our sales and EBITDA before special items. We are talking about €3 billion in sales, and we're talking around a little bit above €600 million in EBITDA. Just to put that in perspective, that's between 5-6% of the EBITDA of the company. You should still consider that when you create your models.

In the numbers I will show you going forward we will show you our forecast on the going concern basis, because these assets are still under the Bayer umbrella today so we put them in. You will also understand that while we can talk a bit about the timing – and Werner just did that. The majority will happen next year – we'd better don't estimate about what the value is that we can crystallise out here in the next year.

To sum that up, we finished the transformation and the portfolio adjustment phase, and we are now going in the phase where we are really focused on execution, creating value in the space of health and nutrition.

I will start off with the four focus areas that we are driving actively to deliver value through 2022 and beyond. Of course growth is the engine of everything. Growth ahead of competition is the target. We operate in highly attractive markets, and we allocate substantial parts of our funds to R&D and Capex. Just to put it in perspective; we will talk about capital allocation later on, but before we get to allocate free cash flow we're spending €35 billion over the next four years on R&D and Capex; two thirds in R&D and one third in Capex, so very significant investments here. Pharma and Crop continue a growth trajectory above the market, and in Consumer Health you will see later on that by 2022 we should have caught up after the transformation with the market growth there as well.

The second focus area – and again, I will go into each one of these – is consistent profitability enhancement. Crop Science synergies are obvious. We talked about the $1.2 billion, which is now translated into €1 billion. We will talk in more detail in my presentation and also certainly in Heiko's presentation about the comprehensive growth acceleration programme that we also call Fit To Win, and then we're going to talk about the adjustment that we are making to the corporate

platforms. That is to a large degree also a function of the portfolio adjustment that we have made over the years, and now we're taking some of the remnant costs out of there. Just for definition purposes, when we talk about corporate platforms that includes our country organisation, our corporate functions, and that includes our business services which include IT, for instance.

Free cash flow; of course, if we grow the business and increase the profitability we will grow free cash flow with that, but additionally we are putting a strong focus on Capex management and working capital management, which I will also touch on later on.

Last but not least, the value driver through disciplined capital allocation. I think you have seen our commitment to shareholders in the 8% growing dividend over the last couple of years. We are committed to de-levering; those are not just words. We have done it after the Schering acquisition, we have done it after the Merck acquisition, we will do it again and then we will continue to invest in growth and innovation. A disciplined hold on M&A and some in-licensing.

I won't spend much time on this chart; it will come back in the presentations of my colleagues on growth. I will just add – Werner had the market size in there, I will just add the percentages that we assume for those markets to grow; 3% in Crop, 4-5% in Pharmaceuticals, and 3-4% in Consumer Health. To make one important point, when we come to our financial forecasting for the mid-term we have assumed trend growth in Crop Science, so we have not planned or modelled any cyclical recovery in our numbers. That is a very important assumption that I want to share at this point.

The next chart is a bit of a busy chart. It talks about Bayer 2022. You should view that term as an umbrella programme over the synergy and efficiency programmes that we have launched. I start on the right side with theoverall contribution of €2.6 billion you saw that in the press release last week. You may ask yourself, 'Why do we call this thing contribution?' Two reasons for that. First of all, technically it also includes the €200 million sales of synergies that come from the Bayer/Monsanto Crop Science integration, which are not savings. Secondly they are called contributions because a portion of it we are going to reinvest in the business, and you will see later on what falls through to the bottom line and what will be reinvested.

We are also budgeting a onetime cost, most of them cash cost, in the range of approximately 1.7x the contribution. You have four boxes in here, and the box on the top left in green is Crop Science. Just to be precise here, we didn't round down. It's really €1.04 billion. We used an exchange rate of 1.15 to transfer from dollar into euro, and you see the split between sales synergies at the EBITDA level as a reminder. That is coming with significantly more sales. Cost synergies, and then we split out the cost synergies that relate to the platforms, which is about €400 million. I will come back to that.

Consumer Health, a comprehensive growth acceleration programme. We're saving in total €500 million there, and again €100 million out of the €500 million is associated with corporate platforms. And then we are at Pharmaceuticals, where we have a €200 million contribution that I'll pass out for you in a second. Additionally, we look at platform contributions of €900 million. The reason why I passed this out is that from a programme management perspective we're looking at all platform actions through one overlapping programme, so in total we are looking at €1.4 billion for the platforms, which include the €900 million base, €100 million from Consumer, and €400 million from the Crop Science synergies.

We've also put in the footnote an indicative phasing. We believe roughly – and we'll have to refine that a bit – that about 30% of those contributions will be effective in 2020. 70% will be effective in 2021, and we'll have the full effect in 2022. Some of these have effects beyond 2022, but we just put down here what you can expect to contribute to the result in 2022.

Let me now spend a little bit of time on each one of the four boxes, starting with Crop Science. I'll be brief here, because you'll hear more about this. Again, also from my end looking at the plans there, you'll see a lot of it today. What a tremendous opportunity it is. It's not only a leading business in terms of value creations for the customers, it's also going to be a leading business in terms of value creation for us, and therefore you. A tremendous business. The €1 billion, like I said, includes sales synergies, synergies in R&D and operations, also in the platform support functions in the IT infrastructure, and then a lot of the synergies come from procurement. We have passed that out in some of the roadshow material as well.

When you look at the phasing of that part of the overall contribution you will see the 25% in 2019 going up to 55% in 2020, 80% in 2021, and the full contribution in 2022. When you take out the ranges we have given you previously this year you'll see that the numbers ae in these ranges, albeit a little bit at the lower end of the ranges as a function of having gotten the keys and looking at what's really there, but then also the alignment with other programmes, with the other platform programmes. I'll give you a concrete example. We have very comprehensive work to do on our IT systems, integrating our ERP ?? systems, and to align it with the other programmes we had to push and pull a little bit, but I think that's very good progress that you're going to see there.

Overall, and I won't read them to you, the team has had a long time – two years – to come up with these measures. There are over 100 measures, and the top 10 measures contribute 60% to the contribution. You saw it in our press release last week. Unfortunately these measures always come with a reduction in headcount as well, and in that area as you saw on the press release, that we are eliminating about 4,100 positions with this measure.

Switching over to Pharmaceuticals, there are really two key measures. One is the adjustment of the internal R&D structure in favour of increased externalisation of R&D. The second one that you have also seen, that we have consolidated or will consolidate our Factor VIII manufacturing, and we will not bring our German plan that is a work in progress online. Contribution €200 million, some of it – most of it – for reinvestments in innovation. The headcount impact here is on the first line item, 900 positions, and on the second one, our manufacturing, approximately 350 positions. That was also in the press release.

Coming to Consumer Health, I think internally this programme is called a comprehensive growth acceleration programme. They call it Fit To Win. You see the measures here, very well defined by Heiko and his team over the last half-year: leaning up the organisation; flattening structures; cost optimisation using zero-based budgeting techniques; looking at COGS in particular, looking at the site network, simplifying the business, reducing the number of SKUs; associated platform costs that we have in this business. Headcount-wise approximately 1,100 positions that will be reduced by this action.

Let me focus on the platform cost reduction. I'll repeat myself, those are the corporate functions,the country platforms and business services like IT. We will streamline but continue to focus on quality, cost and speed. This is a pretty significant measure, in total between 5,500-6,000 positions will be impacted by the measure. You can imagine you cannot do this without a significant structural change, activity reduction and efficiency improvement through automation, for instance. You can't just simply go to the remaining people and ask them to do the same work. You have to make choices here, you have got to get leaner, adjust the structures, and we are ready to do that. This is the youngest of our programmes; we have been working on this for approximately two months now, and we will provide further details as we go. I said, we have indicative phasing but we're going to sharpen over the month to go. Tough programme, but we have to do it to get the profitability of the company into our target range.

With that, I want to show you the profitability plan for our business. It is a bit of a busy chart, and we will come back to most of it later on. You see our pro forma guidance on the left for 2018, and you will remember we first used that in September then provided further colour in November. It basically is created by simulating that the acquisition of our new Crop Science business has finalised on 1/1/2018, also the divestitures that are simulated to have happened on that day, and all the associated financing actions on that day as well.

EBITDA and revenue, we are planning to grow the top line in 2019 by about 4% to about €46 billion. That would translate into roughly €12.2 billion EBITDA. And then for the period from 2019-2022 we're planning with a 4-5% growth of the top line, getting us to approximately €52 billion in revenue, and €16 billion in EBITDA before special items. The EBITDA margin target for the company is then greater than 30%, and you see we are at 26% today. We'll target 27% in 2019, and like I said, greater than 30% in 2022. All of our businesses are contributing. You see Crop Science as announced – when we announced the acquisition – greater than 30% profitability there, with solid growth above the market; 4% next year and then greater than 4% for the years to come. Pharmaceuticals is continuing to increase the margins. This year it is about 33%, next year 34%. We will be at greater than 35% in 2022. You then also see the recovery in Consumer Health; 20% this year, developing to something like 24% in 2022, also considering some of the portfolio measures. It is a very exciting plan. I think we control a lot of the parts of this plan and we are ready to execute it.

With that, let me get to the chart that many of you have probably been waiting for, because last week we also talked about core EPS for the year. Yousee that at the bottom of the chart, and then you see EBITDA before special items on the top. You will have asked yourselves, 'How did you guide to 6.70, and now you're telling us 6.80?' It is growth, but it's not really exciting growth. We called it robust development here. Let me spell it out for you, but before I do it I want to give you also the notice that in the backup of the presentation you will see some of the assumptions we took for this forecast. You will see, for instance, currency assumptions. This is all modelled on constant currency. It was actual for the first nine months and a forecast for Q4. You can now argue with me when you look at the spot rate that this should be a bit better, and that is certainly the case, but that is how we have always done it on constant currencies.

You will also see our tax rate assumptions of 23%. You will see 982 million share count and so forth, so I will refer you to the backup here as well. If you look at the bottom chart and you look in the middle I think you take the 6.70, and you will not be surprised that we have modelled growth and incremental synergies. As a reminder, in the pro forma we already had the full year of synergies in there, so we are going to get incremental synergies and growth, adding 50 Euro-cents together.

But then there are two items in there that I think we are not so clear for the street. Number one, portfolio effect. In 2018 in the first four months we still included Covestro at equity; it was not in our EBITDA but it was in our financial results, but it contributed to the EPS. And then we haven't talked about this today, but we have started the divestment of our prescription dermatology business to Leo Pharma in Denmark, and that business is of course not contributing to our business going forward. That is about 20 cents altogether.

And then we had a one-time effect in 2018. With the successful Compass study and the use of Xarelto for CAD/PAD we had an opt-in of our partner J&J in the US. They contributed 189 million to the bottom line which was a one-time effect, not happening again in 2019. That's why we got from 6.70 to 6.80 as the jump-off point then going into 2021/22, where we expect a strong acceleration of EPS.

I want to point your attention on the EBITDA line above to one item, and it's on the very right. It's called IFRS 16. I assume that most of you know what it is, some may not. It's a compulsory accounting standard that comes into effect 1/1/19 which basically forces you to take your operating leases and reflect them in your financials as a so-called right of use asset which basically simulates as if you would have bought the asset. Your lease expenses that were fully considered in EBITDA are now translated into depreciations that of course are calculated away in EBITDA.

We are still in the final throes of finalising our analysis we have done for the Bayer side, but we are still finalising it for the newly acquired business. Right now we assume that our balance sheet will grow by about €1.1 billion. We have put in the appendix a little case study, because I think this may be a little bit foreign to some of you. We put a little case study in there, and the IR team and myself are equipped to walk you through that in the break. That is something that I assume you see from other companies as well. It is cash neutral, so it doesn't change anything to the cash flow of the company. We'll come back to it; it does impact net debt as well, because it's a liability, a long-term liability that's on the balance sheet.

If you do the same exercise for 2022 and you use also the 2019 as a jump-off point, I'll start again with the EPS. You see that growth and cost inflation together add €1.50, so if you net it you grow the top line and the business but some of your costs go up, so your input material becomes more expensive providing salary increases, so the next of that is about €1.50.

Then we have the synergies and efficiencies for €1.70, and then we do some reinvestments of about 40 cents. Then you have got to consider of course when you look at the EPS our financial result, and as we de-lever the company we also pay less interest, and that adds 30 cents to the EPS. That gets us to the ambition which we believe is very much doable of about €10 in 2022.

We have also for your convenience passed out – I am not sure whether you can see – the green between the charts, how the €2.6 billion of contributions are reflected in those numbers. Of course, some synergies already in 2018 are rounded to €200 million. Some further synergies like I mentioned of €100 million in 2019. Then in the growth you have the sales synergies, the €200 million, and then the rest of the synergies and efficiency programmes add to €2.1 billion, so that gives you a bit of a break how that programme translates into our EPS.

Now we are done with the profitability piece, so let me briefly talk about cash flows. Again, a busy chart; the top swim lane is Capex, the bottom swim lane working capital. You see the values that will be on the balance sheet or in the cash flow statement at the end of this year as a – on a reported basis, so we have about €3.1 billion in Capex and then for our new combined business about €15 billion in working capital. The boxes underneath show that as a relation to our sales, so about 7% in Capex, 34% in working capital.

You see that the Capex rate over the years has increased for two reasons. Number one, we have certain big projects that are being implemented right now, for instance the dicamba plant in the US that's being finished, and then also the Factor VIII factory in Germany contributed to that. We want to take a very, very hard look at this, at all the Capex we're spending; streamlining it, pushing it out, and seeing that we can get back to 5-6% of revenue by 2022, which will add €500 million to free cash flow in that year, and then going forward as well.

When you look at working capital, you first of all will say, 'How did we get to 34%?' That's a factor of having a much bigger Crop Science business right now. We put it down in the footnote. The working capital as a percentage of sales in the Crop Science business is about 48%, whereas the other businesses are only half of that. Also here we are working very hard with the teams around the world to get that managed to about 32% in 2022, of course. The main items here are inventory and receivables.

When it comes to these kinds of cash flow programmes, I'd like to just make a disclaimer. We're not just driving cash flow for the purpose of cash flow; it needs to be happening in an integrated fashion because at the end of the day we're talking about return. So we will be very careful to not blindly get everybody on cash flow, and while we do it reduce the profitability. If you stop the inventories too hard then you will run into out of stock situations, and you also don't want to lower your receivables by giving X percent early payments discounts. So we'll do that in a very, very measured way, but very, very focused. That will add to the free cash flow of the company at the end of the day.

Now let me bring it all together. Again, a busy chart but here you have it all on one page. I won't read all the numbers to you. We've already talked about the 4% CAGR on the very right on sales, 9% on EBITDA before special items, 10% on core EPS, 18% on free cash flow. Free cash flow is higher because you have to double leverage from the cash flow actions growth and the profitability, and with a lower jump off point because we have a lot of the one-time costs associated with the programmes early on. Cash flow should be in the €8 billion range in 2022, and we should get net debt to about €26-28 billion. Again, that is before the divestment proceeds.

I want to draw your attention to one number here, the €36 billion net debt – net financial debt, I should say, in 2019. We are making progress, but like I said earlier IFRS 16 also forces you to put liabilities on the balance sheet that are associated with lease contracts. We're making progress but then we need to put the new liability on top of it, but just to be clear the rating agencies have always done it that way. They've always factored in lease obligations in their calculations.

One more word on net debt before I go to my second to last chart. At the end of this year about 65% of our net debt will be in US dollars, so when we need to take the exchange rate at the end of the year when we put our balance sheet together, so it's kind of sensitive to the dollar exchange rate, and approximately a 1% change in the exchange rate translates to a €250 million impact on net debt. So if you see a couple of changes there, I'm almost certain that it will relate to the exchange rate, because the measures we're doing to reduce it are well underway.

That brings me to my second to last chart, on capital allocation. Werner had this in his piece as well. Again, let me say that when we talk about capital allocation internally we take a broader definition. We also allocate capital to R&D and Capex. Over the next four years that will be €35 billion, two thirds of it in R&D and one third of it in Capex. We're heavily investing in innovation and the infrastructure to deliver our goods to our customers.

Free cash flow, one word that is also in the definitions and the backdrop, we have changed our definition of free cash flow. We've adjusted it to the industry standard, and therefore also already deducted interest expenses, because it's not really free – we're obligated to pay it. The money that is displayed here as free cash flow is truly available for shareholders returns, deleveraging, and for innovations and acquisitions.

Growing dividends I talked about, and net debt I talked about. With the EBITDA of €16 billion and also considering a pension liability of about €8 billion on the balance sheet we will be somewhere about 2.2 leverage at the end of 2022, and then I talked about ongoing investments in acquisition and bolt-ons.

And then there are the divestment proceeds, and this is something that you will – if you had a chance to look at the press release that we have issued concurrently with the start of this meeting, you will have seen a quote in there that says on those additional proceeds we will first certainly go back and look at our debt, because when you make the divestment the EBITDA goes away so you want to reduce the debt as well so that your leverage ratio is the same. That's certainly front and centre in our mind.

We have also said that we will explore the option of utilising a significant portion of the divestment proceeds for share buybacks. We don't have a specific programme defined yet, but we're looking at the share price. We're looking at our plans, and at least we think it's an absolutely fantastic investment, no doubt. That is something that we seriously look at and are planning to potentially do significant actions here.

That brings me to my last chart, a summary real quickly. The red monitor – the monitor's turned red and that time's up. It's an exciting story. It's a story where strategic execution comes together with a solid financial plan. We have, or are in the process of completing our portfolio measures. We're a very focused company; it's health and nutrition. That's all we're good at and that we're focusing on. We are creating value through growth, profitability enhancement, driving the free cash flow, and significant capital allocation measures. We're very, very focused on our shareholders, and of course on our debt holders and all other stakeholders. I think when you look at 4%, 10% and 18% in growth rates for sales, EPS and free cash flow, I think it's to a very large degree in our hands. Those are programmes that we execute that we have defined. Of course we don't control the market growth, but we're very, very confident that we can deliver this.

I'm looking forward to your questions later on, looking forward to report on the progress as we go, and with that I'll hand it over to my colleague Stefan and his colleague Jörg to walk you through the Pharma story.

Driving Performance and Delivering New Growth Opportunities

Stefan Oelrich

Head of Pharmaceuticals, Bayer AG

Jörg Möller

Head of R&D Pharmaceuticals, Bayer AG

Stefan Oelrich

Good morning, ladies and gentlemen, also from my side. My name is Stefan Oelrich and I head up the Pharma business for Bayer. I will be joined here on stage by Jörg Möller, who is our Head of R&D, who will be giving you a good view on some of our innovation plays and R&D progress that we're making.

Werner has said that I'm brand new to the company. Actually, truth be told, I have some history with that company too, so I knew what I was getting myself into. Now, before coming, though, you can be assured that I did my due diligence about the future of this Pharmaceutical business, and not surprisingly you will hear that I concluded that I do actually believe in a very strong, sustained future for this Pharmaceutical business. During this presentation we're going to touch on some of these reasons why we believe in the future of the company.

Let me start by giving you a few of those that I've also seen as over the last five weeks I've been travelling around the world, meeting our people in the four corners of this world to assess what

business we have at hand, and if my due diligence that I had made prior actually would turn to be true. Three things, and you're going to hear them in the presentation.

Number one is the track record. This company has been delivering year after year, time and again, on their promises when it comes to their Pharma business. What does that tell me? It tells me that this is a great company that is capable of executing when they have to.

Secondly, when I look at our portfolio I see a lot of runway left in our existing product. I always hear about the loss of exclusivity of Xarelto, but we're six years out. What does that tell me when I say that we have a lot of runway left? That means that this company is really great at doing life cycle management, at creating opportunities that sustain the growth of a medicine until the end of its life cycle.

And thirdly, it's obviously the choice – and I think we're at the crossroads – is the choice of where do we go in our innovation play. Joining now allows me to both take advantage of that runway that is left, and make those crucial choices that are necessary to get us into that future when it comes to innovation and sustaining those – that growth momentum.

Let me start by talking quickly about the Pharma market. Werner mentioned it continues to be an attractive marketplace, €870 billion in total volume, and with a CAGR growth rate projected to remain at the 4-5% range in the coming years. Some of those dynamics that play, some of them are good, some of them are bad. Aging population always sounds good, especially when you're in the chronic medicine business. However, it also puts considerable pressure on public health systems on how to finance things, so you have to come up with solutions to serve both.

Then innovation. Innovation seems to be a two-edged swords in our dynamics. We have a decreased in R&D productivity across the industry, at the same time we're seeing an increase in pace, academia, and moving with science[?]. Things that are breakthrough technology are going to completely change the way how we deliver medicines to patients in the future. I can think of gene editing that was mentioned today, gene therapy. Stem cell therapy. All things where Bayer is actually actively involved in, and which are part of our future innovation play.

Then we will continue to be disrupted by digital. In my previous life I was very much involved into some plays with a company called Google in California, and I can see them entering our space. And we need to come up with ideas and concepts of creating new business models that go beyond just our medicines, and take our just purely product focused approach away to a more holistic offering which will probably end up being more in the area of going from patient outcome, which we're very much focused on today, to much more of a population outcome management.

So Bayer, Bayer has been in this space for more than 100 years, and I think we have one of the more balanced portfolios in this industry. We're active in a lot of therapeutic areas, and we're also quite balanced when it comes to our geographic footprint. I will speak to China a little later in my presentation, but our strong position in emerging markets is a testament also of our strong position there.

And then in those therapeutic areas where we have presence we typically command the number one or number two position, which has always been what this company has done. In the areas where we would be active we would be one of the leading companies in those segments. Retinal disease, which I find amazing because when I left Bayer we were nowhere in retinal disease and today we're clearly the number one here, which again is a testament to our ability to execute when it comes to innovation. Women's Healthcare, which traditionally has been a strength of ours, like Radiology too.

And Cardiology, it is interesting; we look at the market and say we're a strong number two. In my previous company when they were showing slides they showed they are always as the number one. I guess that has to do with the fact that we see the market a little broader and we include the metabolic play in here. And then a strong position also in Hematology. All of that with household brands that you see here on the bottom.

I was saying in my introduction that we're strong at executing at Bayer. You can see it here in the numbers. Year after year solid growth, and margin improvement over the years. All of that combined with a very responsible way of spending on our commercial activities, which has led us to inject more money in innovation. You can see that over the past years we've been able to inject an additional €1 billion in investments into our R&D activities.

How do we do this? We do this like many other companies do; we focus where we can. We focus on our must-win brands, which amount for 70% of our sales growth over the past years, and I'll speak to some of them in particular, but also on key markets. The fact that China for us is going to become our number one market over the next years speaks volumes. Very few companies actually can say that. You could say it also has to do with the structural weakness that we have in the US, but that being said it is still something that sets us apart. 50% of our growth comes from those must-win markets. All of that, combined with that prudent cost management which has helped to move up our margin by 310 bps over the past years, by improving our COGS, by improving our marketing and sales investment compared to our net sales, and increasing our R&D investment.

So, going forward, we see that we have all the ingredients to sustain that business and keep pace with that growing market. Bayer Pharma is going to remain attractive in the mid-term in terms of growth. That will also help us to further drive expansion of our EBITDA margin. We will do that by relentless focus, by innovation, and excellence in execution, which strangely means the three things that I saw as I entered the company as some of the key strengths that we have.

Now, ladies and gentlemen, let's talk about the things that you all know too well, Xarelto. This is one of the true gems of the industry, and I think the envy of any company in this space. And I have a little bit of a history in Cardiovascular, and I would have killed to have a product like this in my prior life. Bayer has been incredibly strong in driving this, and the amazing thing is that thanks to very good life cycle management we have a path forward to further grow this business. I think we're still far away from peak sales for this product. You can see the numbers here; the €5 billion on top, that is including the full sales of J&J which we do not register fully inside of Bayer, but we see a lot of runway here as we move along.

Why do we see that? Well, it's mostly because of this additional indication that we've got. You've heard about this, the CAD/PAD additional indication. Why is this so important? Not only does this open the opportunity for 30 million more patients to benefit from this type of therapy worldwide, it is with unheard of clinical advantages and clinical benefits that we have brought proof that we can reduce mortality – cardiovascular death, in this case – by 22% on top of people that typically would already receive aspirin. If you compare this in modern cardiology, those are data that you don't see that often. This is truly something that is going to change hopefully the standard of care in treating these patients. We move from pure anticoagulation into a new set of patients. This will require some education, and you will have seen some recent launches in the Cardiovascular space. It takes some time to get there and to change those types of paradigms, but we're committed to doing that.

Eylea, ladies and gentlemen, is the other one that we feel particularly proud of, of course. Together with Regeneron we've driven this to be worldwide. More than €5 billion in sales as we speak. And, more remarkably, so I find, Bayer has managed to do basically half of those sales outside of the United States. That is a tremendous accomplishment, and it's even more tremendous considering that we had no clue in Ophthalmology about 10 years ago or so, but we decided to in-license this

opportunity, which comes to show that in pharma products create companies and not the other way around. It's really if you have the right innovation and if you have the right opportunity there, the right medicine, you can make all the difference. And in a very short period of time you can actually turn around your fortune, like in this case.

We still have with Eylea significant runway as well. As we expand our patient base, which is traditionally coming from wAMD patients, we are working on extending the dosing regimen, getting ahead of some of the competitors that are currently in development, and thus securing our position here. Secondly, expanding that patient population, and also going after these diabetes patients that have diabetic macular oedema, which is a condition that I remember very well again from my previous employment.

One other area that I would like to make you more familiar with is our Oncology play. You're going to hear later on a little bit more also from Jörg on Oncology, but this is an area where I must say coming in – and I went to see our Oncology folks three weeks ago in the US. I did a deep dive with them, and I must say I went away being truly impressed. Truly impressed because Bayer is managing to create a viable and a strong Oncology play. This goes beyond the Nexavar/Stivarga/Xofigo play.

We now have with larotrectinib, in a short period of time created a product that will also alter the standard of care in patients that suffer from this NTRK fusion abnormality, which is a genetic abnormality that you can fix by giving this medicine which helps to inhibit that growth factor which will cause cancer in those patients. The epidemiology of this type of tumour is very low, so it's a rare disease, but when you consider that it goes over all tumours and is effective both in children and adults, you can get an idea. As genetic testing makes progress in the therapy or in the treatment of cancer patients you can imagine that there's a lot of opportunity here also for those patients in need. We believe that we're going to be capturing more than 750 million peak sales with this opportunity.

What is very impressive with larotrectinib, which – and we've got to get used to it now that we have the approval for about a week ago or so with Vitrakvi, which by the way is a really nice brand name. NTRK fusion, so Vitrakvi, it's easy to remember for the prescribing physician. With Vitrakvi we have unprecedented efficacy and response in those tumours. A total response rate of 81% across all tumours is an incredible efficacy, and we have complete response here in the studies of 17% of patients. There are other products in the same category which are not capable of achieving similar numbers, at least from the data that has been presented so far.

We remain quite optimistic, especially also that we're going to add darolutamide, a novel treatment in prostate cancer, to this mix by the end of next year. Unfortunately we cannot give you more than the headline data so far. We're going to present this at a scientific meeting early next year, but believe me when I tell you that we're really excited about this opportunity, and that's in spite of the fact that we're moving in a crowded space.

I talked to you about China initially. I went to China two weeks ago and I sort of understood why Bayer is punching about its weight class in China. In China we're in the top five of the multinational companies, which is way better than what we have in the rest of the world. And I wanted to see with my own eyes why that was so.

First of all we have a long standing presence in the country, but I saw with my own eyes what a talented group of people we have managing our Chinese business. And those talented people are managing a portfolio which seems to be exactly balanced to the needs of the Chinese market. Some of our established brands like Glucobay, which represents more than 90% of its global sales now in China. An incredible success. Same for Adalat, which amounts for about 60% of global sales just

from China alone. You add to that Xarelto, which was recently added to the reimbursement list in China, and you get an idea that we still have enormous growth potential in this market.

Talking about loss of exclusivity, typically China is a little bit more forgiving when it comes to that with brands, so we believe that there is still a long way to go with Xarelto, who already now is clearly the leading brand in anticoagulation as we speak. So lots of good news from there too.

With that I am going to pause for a second and hand over to Jörg, who's going to tell you some exciting stuff about the science that we're working on. Thank you.

Jörg Möller

Thank you Stefan, and good morning ladies and gentlemen also from my side. I'd also like to welcome all participants who are joining us by webcast.

Stefan, indeed I was glad to hear that one of the reasons why you came back to Bayer was our ability to deliver, and that certainly also is true for R&D. If you look back over the last 10 years we really have enjoyed above industry average productivity when I look at sales generated coming out of our own pipeline.

Indeed, we have enjoyed a 100% success rate over the last 10 years when I look at our new molecular entities that we brought successfully through to Phase III development and to market approval. Of course that is not something we have ever planned for, but it has set a solid basis for above industry growth over the last couple of years for our business.

Right now we have about 50 projects in clinical development in various stages. And we are executing around 70 clinical trials, with around 28,000 patients enrolled into our portfolio. Not only were we successful in driving our late stage pipeline, we also were at the spearhead of scientific advances. And some examples on this non-exhaustive list include our state of the art anticoagulant Xarelto that you heard Werner and Stefan talk about where we have the broader set of indications brought to approval, but we also really went into some paradigm shifts such as the approval in peripheral artery disease or coronary artery disease based on the COMPASS data where anticoagulants so far have not been used.

We also pioneered the mechanism of soluble guanylate cyclase stimulation, which brought us Adempas, a first-in-class asset for treatment of two forms of pulmonary hypertension, including the only treatment approved so far for treatment of increased pulmonary pressure on the basis of repeated thromboembolism in the lung. Another first was our first marketed alpha-therapy, our radiopharmaceutical Xofigo. So clearly in the areas where we play we are also driving scientific advances.

In R&D in Pharmaceuticals we focus on cardiovascular disease and related conditions, and Oncology in our R&D effort. We also have selected R&D activities in Hemophilia, Women's Health, and as you heard from Stefan also in Ophthalmology.

Now, why do we focus especially on cardiovascular disease and oncology? It's not only a question of our in-house capabilities; it is also mainly driven by two reasons. One is the very high medical need. Cardiovascular disease is still the number one killer on this planet. In fact, more than a quarter of all deaths occur due to cardiovascular disease. And one out of six humans dies for oncology reasons, because of malignant disease. And this very high medical need is one of the drivers why we focus especially on these two disease conditions.

But also, if you look at the commercial attractiveness, these are leading conditions from a commercial perspective; oncology clearly being the top therapeutic category with the highest

growth, but also cardiovascular disease ranks among the top three disease indication settings from a commercial perspective.

I now want to focus and give you some more details on our advance in late-stage development. Some of you who follow our pipeline very closely may miss two agents on this chart. One is anetumab ravtansine, our mesothelin antibody drug conjugate where last year in 2017 we reported that we did not hit the primary endpoint of progression free survival in our second line mesothelioma study, where we tested anetumab against vinorelbine. Now, Anetumab clearly showed in this trial anti-tumour activity as a single agent, it just was not better than vinorelbine. And because of that demonstrated anti-tumour activity we are continuing to evaluate anetumab in high mesothelin expressing tumours in Phase I trials, but given the early stage of our effort there we have not presented peak sales on this chart.

For vilaprisan, our selective progesterone modulator, we have just some days ago put clinical development of our ongoing trials on hold. And that is due to very recent safety findings in long-term toxicology studies. These findings were not seen in prior toxicology studies, nor were they seen in any of our clinical studies. We have therefore decided as a precautionary measure to stop enrolment into our ongoing programme, evaluate the data, and of course update you once we have reached a conclusion there.

Now 2018 has been quite a successful year. You heard about our approval of the COMPASS data. You heard about the recent approval of larotrectinib. We also approved our long-acting Factor VIII replacement, Jivi, both in Japan and Europe, and also in the US. But we also made good progress in our remaining late stage portfolio. Stefan already covered larotrectinib in his presentation.

We recently informed you about our good progress with darolutamide, our androgen receptor inhibitor that met the primary endpoint in its first Phase III trial, the ARAMIS study, in a population of non-metastatic castration-resistant prostate cancer patients. We have a second Phase III study ongoing, the ARASENS trial, where we expect in a data driven and event driven session to see clinical completion in the second half of 2022. And that trial evaluates the population of patients with metastatic hormone sensitive prostate cancer patients.

Last year we were able to launch copanlisib in the US, our PI3-K inhibitor – in my view actually probably the best PI3-K inhibitor that is out there – on the basis of a strong Phase II data set, using the accelerated approval pathway by FDA. We have an ongoing Phase III programme where we expect data results to occur in May 2020 or September 2021 respectively for the CHRONOS-3 and CHRONOS-4 studies respectively. Here we confirm peak sales of more than €0.5 billion.

Moving on to Cardiovascular, our third generation selective mineralocorticoid receptor finerenone that we are developing in diabetic kidney disease is making good progress in two large, event-driven outcome studies, the FIDELIO and FIGARO study. While FIDELIO looks at kidney endpoints, FIGARO focuses on cardiovascular endpoints. We expect to see clinical completion of these two trials in the first half of 2020 and around mid-year 2021.

Together with our partner Merck we are also developing vericiguat, another agent of the class of soluble guanylate cyclase stimulators, in chronic heart failure. In the population of heart failure patients with reduced ejection fraction, the VICTORIA trial has completed enrolment and we are expecting development of the required number of events, and expect that to occur in early 2020.

We have this year decided to also move ahead in a Phase II study in heart failure with preserved ejection fraction in the VITALY programme, where we expect to see clinical completion in the second half of next year. Here we are seeing peak sales potential of more than around €0.5 billion, and that is the Bayer share of the geography where Bayer will commercialise the asset.

Now let me focus a little bit on darolutamide. Prostate cancer is the most common cancer in man, and while it is usually a relatively slow growing tumour it has a high propensity to lead to metastasis, especially bone metastasis. It's often the bone metastasis leading to fractures, and if those fractures occur in the tumour column [inaudible] they may lead to spinal cord compression and very severe implications of the affected patient. It is therefore one of the key goals in the treatment of prostate cancer to avoid metastasis, to avoid bone metastasis, and darolutamide achieved this primary endpoint of metastasis-free survival in the ARAMIS trial in a population of non-metastatic castration-resistant prostate cancer patients. And that is the importance of this achievement; it is one of the key goals in the treatment of prostate cancer. As Stefan mentioned, we will update and present the data at an upcoming scientific meeting, but we are really excited about the data that we have seen with darolutamide. We have a second trial underway as I mentioned, the ARASENS trial, focusing on a population of hormone sensitive metastatic prostate cancer patients. And we look forward to also see that result.

If we are successful with bringing darolutamide to the market it expands our position in prostate cancer to an earlier treatment phase, therefore broadening also the population for which we have treatment offerings in our portfolio, in addition to the data which brought Xofigo into this population at a more advanced stage of the underlying disease.

This chart gives you an update of our expected launch timelines for the assets that I mentioned. I also want to point your attention not only to damoctocog – trade name Jivi – our long acting Factor VIII replacement therapy that we got approved this year, but also to the fact that with our antibody again the tissue factor pathway inhibitor, Anti-TFPI, we have an agent in Phase II development that also promises to be a new mechanism – therefore a new potential treatment paradigm – in haemophilia treatment.

We also are basically at the early stages of clinical development in our gene therapy approach, in our partnership with Ultragenyx, where we have an adeno-associated vector that is tailored to improve gene transfer into liver cells. And we are at the beginning of clinical development there.

I will now switch to our early pipeline. Here we have an exciting platform that we obtained in the context of our Algeta acquisition. I already mentioned Xofigo, the first alpha radiopharmaceutical indicated for treatment of prostate cancer. In contrast to Xofigo, our targeted thorium conjugate has the ability that we can put a conjugate onto the thorium and bind it to an antibody. It will deliver alpha radiation, and therefore may induce DNA damage leading to cell death. Alpha radiation – in contrast to beta radiation – is active only over a very short distance of round about 2-10 layers of cells, and therefore it's able to deliver very discreetly radioactivity very specifically. The ability to conjugate thorium and put an antibody into it allows us to very specifically address various tumour tissue, almost like a toolbox.

We are in early stages of clinical development, and we have in clinical development one antibody targeting non-Hodgkin lymphoma, expressing CD22 positively. There is clearly a significant need for a new therapeutic option in this disease stage, such as diffused large b-cell lymphoma or also follicular lymphoma.

Another antibody that we can put onto thorium is mesothelin targeting. Therefore we have the ability to potentially address tumours that have a high expression level of mesothelin, certain adenocarcinomas, mesotheliomas, and adenocarcinomas of the lung and ovaria. In Phase I already we have an antibody that is targeting the prostate-specific membrane antigen, which is a predictive biomarker that is also associated with high and specific overexpression in prostate cancer cells.

And ast but not least, at the pre-clinical stage we have an antibody targeting Herceptin-2, and therefore has the potential for treatment of patients that are resistant or refractory to already approved targeting therapy.

Ladies and gentlemen, this is a toolbox that if it works out the way we hope it does is unique and proprietary for Bayer, where nobody else has this ability so far.

We also have had some setbacks in our mid-stage pipeline, and we were not able to transfer as many projects as we would have liked into our late stage pipeline. We therefore have taken action, and have at the beginning of this year as you know, decided to combine research and development into one organisation. We have built a new R&D leadership team and the new R&D leadership team has worked in the past couple of months on a realignment of R&D activities, where the clear goal is to drive productivity and therefore sustainability of our Pharmaceutical business.

We have decided to focus on select areas in high unmet medical need in the fields of oncology, cardiovascular disease, and gynaecological therapy. But we want to drive a much deeper disease understanding and a broader mechanistic approach, where we will follow the data and follow the science.

It is our goal to invest into new technologies and capabilities, and of course continue to explore potentially a really game-changing innovation through Leaps by Bayer, and I will also talk briefly about that in my presentation.

One of the key drivers of our new R&D strategy will be that we will have an increased portion of our R&D asset sourced externally. We will also change our geographical footprint and increase especially our research presence in the US, to be there in an ecosystem where emerging science is being developed. We will do this by adapting our internal cost base and free up funds for sourcing of inorganic opportunity.

Ladies and gentlemen, we spend about €3 billion annually on R&D in our Pharmaceutical division. That's a lot of money, but it pales compared to the about €300 billion that is spent annual in the life sciences. I think these two figures alone make it clear that in this day and age the ability to work successfully in collaboration and partnership is the key ingredient for success in our business. Werner mentioned our track record, working successfully in a collaboration with Eylea, with Orion Pharmaceutical in darolutamide, with Loxo, bringing Loxo and larotrectinib to approval. This indeed is making us to be the partner of choice, because that success track record is closely followed by biotech companies, by smaller pharmaceutical companies, by academic players.

We also receive very good feedback when we talk to our partners at the Broad Institute, at the German Cancer Institute, but more importantly we are seeing assets moving into clinical development resulting out of these collaborations with academic partners. And that will be something we are going to be doing more, implementing the new R&D strategy going forward.

In my final slide I also want to talk about some of the very early, high-risk but potential game-changing opportunities that we are just doing via Leaps by Bayer. In healthcare alone Bayer since 2016 has invested more than $500 million into largely two joint ventures. One is together with CRISPR Therapeutics, the joint venture that founded Casebia, a company using CRISPR/Cas9 technology to focus on potential breakthrough therapies in cardiology, namely congenital heart disease, blindness in the field of ophthalmology, but also non-malignant blood disorder.

On the other side BlueRock, which also has been established with Bayer and Versant Ventures, is focusing on the technology of inducable pluripotent stem cells. Here the research focus is on heart muscle regeneration in patients that have suffered a myocardial infarction or are suffering from heart failure, and in neurodegenerative central nervous systems disease such as Parkinson's disease.

These are high risk approaches, but if successful they really have the potential to change the treatment paradigm and offer a curative approach for these diseases. This, together with the progress we have made in our late stage pipeline and our new R&D strategy, makes me excited and also confident about the next things to happen and our ability to drive productivity in R&D, and therefore create sustainable growth in our Pharmaceuticals business. And with that, I hand back to Stefan.

Stefan Oelrich

Thank you, Jörg. Getting back to the numbers after this exciting outlook on some of the innovation plays that we have at hand, you've heard that we are committed to continuing our 4-5% mid-term growth outlook, which will lead to an EBITDA of more than 35%. For next year we're targeting growth around 4%, with an EBITDA around 34%.

I think you've seen our short to mid-term plan on how to actually achieve this type of growth. That being said, also in the hallways again I got asked about, 'Yes, that's all very true and nice, but how about the loss of exclusivity of Xarelto?' That is the big elephant in the room, so how do we address that one?

The first thing, and I've said it before but I'll have to say it again: I think something that loses its exclusivity in 2024 is not a near-term event. In Pharma, six years at least in my experience is an eternity, and six years – if you think about what happened in the last six years I think you would agree. You couple that to some of the things that we've seen today in terms of our regional opportunities in China, our oncology plays that are becoming much more concrete, and it's not just larotrectinib – or Vitrakvi –, not just darolutamide. The thorium platform, which mechanistically should work, it is one of the most exciting technological advances in oncology that we can see. We have finerenone, we have vericiguat, which should strengthen our cardiology footprint in the future.

You've heard Jörg refer to our plans to change our innovation model to a more external driven focus. I think we've given proof over the past years with the Leaps initiative, but also with some of the ground-breaking in-licensing or partnering agreements that we have struck, that Bayer is a partner that people can count on. We intend to continue that way.

So, with an appropriate management of resource we think that we have what it takes to go over that LoE, or as I say internally to our people, our job in the next couple of years is to make the cliff as high as we can, and then we will train to become Acapulco divers and take that jump and build the next cliff from there. Becauseit's going to be possible with all the prospects that we've seen from our innovation play.

Before we go to a break, pharma takeaways. Our mid-term targets and our margin improvement is here, and I believe that we have every reason to be convinced that it's perfectly possible. With China we have a strong regional engine that is going to deliver further growth. Oncology is our strong suit going forward, and a realignment on the R&D activities will sustainably improve our innovation output in the years to come. We have some work to do when it comes to that, and I think Jörg has alluded to that. We need to fill our mid-term pipeline. Furthermore, I think we have a strong late stage pipeline. We have a very strong early stage pipeline. We need to now in the coming years do a good job in filling that mid-stage pipeline as well, beyond the assets that we've shown here today, but we have time to do so.

With that, I will send you to a break. I am looking forward to very animated discussions, not only in the Q&A but also at the reception tonight or during the coffee break and the lunch. Thank you very much for your attention.

[Break]

Reinvigorating our Leading OTC Position

Heiko Schipper

Head of Consumer Health, Bayer AG

Good morning. Welcome back from the break. My name is Heiko Schipper. I am head of the Bayer consumer health business since April this year. It's been eight months on the job. It's been an intense eight months and I would describe it as an intense period where I've been working with my management team to essentially find a way to reinvigorate what is fundamentally a beautiful business that has underperformed for the last two years. What I aim to show you this morning is first of all that consumer health is a highly attractive market where Bayer has been successful over the last – more than 100 years. I also am going to show you that we know where the issues are and we have plans how to fix them and thirdly what we have put together as a new leadership team is a very comprehensive turnaround plan that touches many areas of the business.

So, what I explained this morning, a couple of the megatrends that are really underlying the healthy growth of our business at Bayer. The aging population, the rise of the middle class and in our case also the increasing drive for self-care are very important drivers of the growth that is in consumer health today. Growth is projected to continue three to four percent and also the margins are attractive in – particularly when we define that as margins in the wider consumer space. It is therefore also not surprising that if we look at the competitive intensity in consumer health it is increasing significantly. We see on one hand some of our more traditional competitors that come from the pharma space but also more and more competitors coming from the wider consumer space is they're attracted by higher margins and more attractive growth rates in consumer health than maybe in some of the other consumer spaces that we see.

We also see increases in smaller players that have started to enter into consumer health as the entry barriers have started to come down. It is simply easier today to build up distribution thanks to e-commerce. It is cheaper to launch a brand thanks to digital marketing and it is much easier, also, to establish good quality manufacturing thanks to better third-party manufacturing. So, what is important in such a cluttered space but nevertheless highly un-concentrated space is to make clear choices where you're going to play. And this is one of the key elements that I'm going to talk about going forward.

So, let's first take a step back and look at Bayer in consumer health. It is a story that dates back to 1899 when Aspirin was launched and very rapidly started to expand around the globe thanks to its fantastic properties. In 1978, also we started the journey to build it up also inorganically with important acquisitions taking place. We strengthened our presence in North America through the Miles Laboratories deal and subsequently made a transformative deal with Roche in 2005 that really built up the strength of this business in Europe and in Asia. In 2008 we strengthened our presence in China and in Russia with Sagmel and Topsun, two bolt- on acquisitions and another very important bolt-on acquisition in 2013 called Steigerwald where we entered the natural space, which is an important growing segment and has helped our performance in Europe.

In 2014, the Merck acquisition that strengthened our presence in North America. Today we are the number two player in this market with strong positions in seven out of the 10 most important OTC markets. Now, if we look at how the business was built up, it is actually a very interesting story of – now the level of efficacy that Bayer has behind its OTC brands. Coming into this category more from the wider consumer space, I am extremely impressed by the number of scientific rigour that we have behind all of our products. Look at Bepanthen for example, an important dermatology

brand in Europe which has 116 proof points behind its efficacy. Our brands simply work extremely well and this is driving a lot of the good performance behind some of these key brands. Doctors and healthcare professionals and pharmacists recommend these products because they simply work. This is a true differentiating factor I believe for our business in this wider consumer health space.

The best example, of course, of all, is the way Aspirin has been built up over the many years and it is a truly best case example of how you combine good science and also with good marketing. Started in 1899 and the first year is really very famous for its anti-inflammatory properties but then subsequently moving on into cardio with the important move in 1985 when the FDA approved Aspirin's claims on secondary heart-attack and stroke and subsequently the American Heart Association recommending it for treatment during a suspected heart attack. And even as we speak today, more than 200 clinical studies are going on on Aspirin within our company. So, then combining that more on the marketing side with coming up with new forms and new shapes of the product, to make it work better, to make it more consumer friendly, and that's how we have built up over the years a more than a billion-dollar franchise in Aspirin. I believe these are very key elements for us to differentiate in this busy space in the future, making sure that we play in the areas where we can deliver greater levels of science and then combine that with our marketing capabilities.

Now, looking at the more recent performance, it is very fair to say that it has been disappointing. We have not reached the full potential of this business. In 2017, the business really slowed down and turned negative in the second half and also with a lower top line and nevertheless still increasing cost base, we also eroded margins significantly in the last two years. With my management team we spent a lot of time to understand what are the really root causes behind this performance and what can – more importantly, what we are going to do to fix them. Fundamentally, when we look at the issues, we can split them in four key ones. The first two ones are more demand related. The level of innovation that came to market in the last couple of years has been disappointing. We have not been as successful as we were in the past to bring new innovations to this category and this is a key driver for growth in consumer health. When I look at the marketing and sales capabilities, and this is a fast-moving space today, it's how to do marketing and sales thanks to the emergence of new digital technologies that allow you to do this very differently. I believe we have also been not catching up at the right levels and therefore have simply missed opportunities. On the supply side of things, we have also faced very significant issues in the last two years that have basically led to a situation where we simply could not meet the demand that we did create.

We had a regulatory set back in China, a very significant one last year on Kang Wang / Pi Kang Wang and more recently also for our Claritin business where due to changing regulation on manufacturing, we had to temporarily stop supply into that market. You're aware of some of the supply interruptions particularly the one we had in Leverkusen which is a site which we share with Pharma which also very significantly impacted us in the last two years. To give you a feeling of magnitude, some of the supply-related issues kind of took out about 150 to 200 basis points out of the top line in the past two years. On the opportunities side, and I'm going to talk more about this in the coming slides, really an opportunity to create greater focus. After the acquisition of Merck a lot of new categories entered and I'm going to talk about some of the clearer choices that we need to make in order to accelerate this business. Also, when it comes to the organisation, clear opportunities to create an organisation that responds faster to the changes in the market and maybe build some new capabilities particularly in the digital space. And lastly, opportunities to I would say right-size the cost base in order to help fuel the growth but also start to rebuild some of the margins.

So, before I go through the plan, I just want to introduce to you some of the changes we made in the leadership of consumer health. This is a space that is very much in between Pharma and consumer goods. So, when we looked at the capabilities that we needed to have to be successful in the coming years, we really tried to find that ideal mix between people that have good OTC understanding, in other words understand science, understand regulatory, understand the manufacturing capabilities that you need but on the other hand also people that know how to build world-class brands and drive innovation into this space. In the last 12 to 18 months we made some changes in product supply and the new head of R&D and more recently in the last couple of months we have put a new leader in our important North America business and also more recently we're going to bring a new chief marketing and digital officer into the organisation, each of them people who have proven successful track records in the companies where they come from. So, let's get to the turnaround plan and it's fundamentally you see here the building blocks that are going to drive that. Firstly, a clearer choice on where we're going to play. What is the portfolio that we're going to focus on? The other three building blocks are much more execution-related; how do we beef up our innovation? How do we make sure that we catch up and capture some of these digital marketing and sales opportunities? Lastly, how do we strengthen our product supply?

This is all underpinned by a leaner, more agile organisation and a cost base that is the right size. So, let's get into some of these building blocks. Firstly, the portfolio. You know, we took time over the past month to kind of reflect on what is really the right portfolio for us to put our R&D and our marketing and our Capex investments behind for the future. And we were looking at each of the categories and first of all, of course, evaluating them for what is their growth potential and their margin potential but then of course also what is our ability to win in these categories. And we made clear choices to focus on the five categories that you see listed here on the top. Those are the categories that we are going to accelerate and we have good positions here with many key brands in these specific categories. Consequently, we decided to divest the other ones.

The RX Derm business you have – you heard already previously about and since last Thursday you also know that we are going to exit our sun and foot care with primarily our Coppertone and Dr Scholl's brands. When we look at RX Derm, this is a business where we would need significant investment to continue to drive that forward and for an OTC business, it simply fits better with another owner. Also, when we look at sun and foot care on Coppertone and Dr Scholl's a lot of effort has been put in by this organisation since we bought these brands a few years ago. They didn't have a pipeline so a lot of effort had been put – has been put behind that to bring these brands in a better place. In foot care and Dr Scholl's the division brought these brands for the first time to market share gain since 2012 in the last 12 months and Coppertone, although still underperforming the category has a much stronger innovation pipeline that is going to be – that is prepared now for the next sun care season.

But even despite all these efforts, we just feel that these businesses are in better hands with another owner and really mainly so that we can focus on some of the other categories where we are better placed where we can bring this science to the category and also combine it with our marketing capabilities.

Let's then have a look at some of the regional priorities that we have set and I'm going to break this down into the four regions. This is the way that we organise the world because each four are really at a very different starting point and have very different objectives in the turnaround plan that we have put together. I'm going to go deeper into North America as that's really our key area to fix so let me now talk, maybe, about the other three regions also.

Firstly, when I look at Asia Pacific, this is really a market where we have the lowest share and this is the area where we have to build really the highest growth levels. We had very good momentum

there and just the unfortunate reverse switch that we had last year significantly slowed us down. We're going to recover from that. It's a matter of time. We are back on the market and we are gradually building up our business back to growth there. If I look at the brands that were not impacted by this regulatory change, actually we are growing double digit. We are well placed. Nutritionals is a huge category in China and we have a very, very attractive position there in some of the parts of that market. More specifically, our nutritional brand called Elevit, which really is the leader in the pregnant and lactating women space.

Looking at Europe and Middle East and Africa, this is a stronghold for us. We are in the top three in every single market and if we look at the performance there over the past three years and you compare that to our peer group and you kind of look at the average growth rates that have been achieved, we have actually outperformed the peer group there over the last few years. This business has just recently been mostly impacted by the supply related issue that we had in Leverkusen so from a demand point of view I feel extremely positive about this region and once we overcome these supply-related issues in 2019, I believe in 2020 this region is going to fire again at all cylinders.

Latin America is the business where – is the region where we are extremely well placed. With the exception of Brazil, we have leading positions in all of the markets in Latin America and growth there has been attractive behind our key brands and it will continue to be so. So, it's really North America that is the biggest area to fix for us. So, let me talk more about that – what we're planning to do there and it's really around four key focus areas that we are planning to impact this business. Let me talk about the things that need to be done in the next coming years but also what are the first actions that we have already taken in the past month or – and will take in the months ahead.

Firstly, around people and organisation, I mentioned to you that this is a very much a space between Pharma and consumer goods. Well, if I look at North America and if I look at distribution and the way you build brand there, it is actually very close to a consumer goods business. We are able to distribute in all the channels, which is not the case in all the parts of the world and also, we are able to direct to consumer advertising. So, when we look at the strength in the organisation, we felt that we had good OTC and Pharma knowledge in the business but we're weaker when it comes to really building up our brands and be much closer to the customer base that we have there. We took a new leadership in place and by the end of Q1 we have a whole new leadership team ready to get into action in that market. Also, we have driven out a more leaner organisation and already in Q4 this year we have kind of right-sized the size of this organisation by about 20%.

The portfolio choices that I spoke about are of course mostly impacting North America. Coppertone and Scholl's are primarily North American brands so really they will surely benefit from a much greater focus on key brands like Claritin, like One-A-Day, like Aleve, which are very, very strong brands but maybe were not given the right attention as too many resources were allocated to some of the other brands in the past. I spoke about the innovation pipeline and if we look at the North America side of things, the track record is really not where it should be in the last couple of years. So, we are rebuilding this pipeline behind our core brands – the ones that I just mentioned and also we have not had any switches there for the last couple of years. We have very clearly set priorities and we are going after these and I'm hopeful that as we progress into 2019 we will be able to talk more about some of these new switch opportunities that we plan to launch. When it comes to marketing and sales, it's really – and you know if you assess our capabilities there, I would say pretty good on e-commerce but when I really think of catching up and being strong on direct marketing and precision marketing - big, big upside for us to catch up to what best in class looks like.

Then I mentioned already this morning probably the highlight of what has been done there in the last couple of years is to set us up better for e-commerce. If you look at our amazon business today and over the past years, a dedicated team that was set up two years ago has really driven a focussed and really customer-dedicated – set up both in terms of portfolio and also in terms of the way we approach this customer, and we have been growing very rapidly here and are already matching our online to offline share, which is an extremely important KPI to look at in a space where a lot of new players come in that don't go to the offline world and directly go to online. So key KPI to judge every consumer business is to look the ratio between an online and an offline share, particularly for a large player like us. So, good progress there and we're going to build further on that as we go forward.

So, now turning to the whole division. You heard me mention innovation already a couple of times. It's going to be very high on my own agenda to really rebuild bigger momentum behind this and when I think about innovation we're really thinking around three pockets of innovation. Firstly, very key when you mention – when you're managing consumer brands like the ones that we have, you constantly have to renew them. This is the beauty of an Aspirin, that you can constantly lifecycle brands like that for now already more than 120 years. You saw how old some of our brands are. Constantly renewing them and keeping them relevant is key to continue to drive growth coming from innovation. So, that's what I call more than new and improved and strengthening the core innovation.

The second space that we're going to look at and accelerate more is what I call 'adjacent innovation', where we start to enter into adjacent spaces where our brand plays today. So, to give you a concrete example of that, if you look, for example, at our Elevit business, that really was build up to give nutritional supplements to pregnant mothers. When you take a step back, actually when mothers want to get pregnant, it's important that in the planning phase you already start to improve – before the pregnancy start, improve the nutritional profile and also when the mother moves into the lactating phase, the breastfeeding phase, also then the nutrition needs to be improved. So, very good sort of extensions to really start to own much more this mother journey and be the trusted brand for that space. This is driving some of the good growth and Elevit, actually is our best-performing brand year-to-date with over 15% growth.

I spoke about switch opportunities. I still believe this is very key in our category and this is a space where Bayer must be good. This is where you bring science into the consumer health space and we've had tremendous success there in the past just a couple of years – the last couple of years have been slower and this is a matter of rebuilding capabilities that we have.

How do we do that? We are going to keep our overall level of R&D percentage pretty much stable but I feel we have too much R&D resources today invested into structures and people so to kind of make also that a bit leaner and tap also there more into external innovation opportunities. That's going to be a driver of our innovation intensity.

Coming to the brand building and sales capabilities, firstly, building brands today looks very different from building brands 10 years ago. The millennials, the Gen Z consumer is much more interested to understand what is behind the brand, what is the purpose, what are you contributing to this planet and it has become a much wider exercise than just finding one point of difference and marketing this. So, we are going to refresh our brands and bring purpose much higher to the agenda and if you look at the efficacy of our brands and what we actually do and what we bring to this world, this can be expressed in a much more comprehensive way than what we do today. Looking at the way we spend our marketing funds, we are really in a space where we are moving from 10 years ago and mass-marketing now to a precision marketing approach thanks to all the data that we have available on our target consumers. We can target much more precise each and every

individual consumer that we market to. And if we think of the target groups that are fairly narrow in our category because simply not everyone has allergies, to fully make use of that is a tremendous upside for us. We have progressed in the last couple of years spending now 28% on digital but frankly there is a lot more upside here to go much faster and a country like China we are already at 90% so fundamentally the full digital business model already.

E-commerce I am pleased where we are today but a lot of upsides still and we're going to build on that. So, I spoke about China, I spoke about US and China is also very encouraging. Actually, our share in online is four times bigger than our share offline. Why is that? Because not just the Chinese e-commerce space we have captured well in terms of China to China but also cross-border ecommerce which is a huge phenomenon where Chinese consumers are looking for better products coming from other markets, in this case particularly our nutritionals range from Australia is really making optimum use of this cross-border opportunity that is driving a lot of growth for the category there.

So, just to give you a feeling of magnitude, when we are planning to kind of bring back this business to the three to four percent range, we expect roughly a third to come from each of these three buckets that I spoke about. This is of course not mathematical but just to give you a feeling of magnitude of kind of what is going to be driving this growth recovery, this gives you a kind of magnitude of things.

Then let me move to the supply side of the business. I mentioned we had – we've had a couple of challenging two years behind us and we're going to get over these in the course of 2019. 2019 is still a year of recovery, Werner mentioned already that we're going to have the FDA assessment at the end of Q1 so we'll gradually improve that situation.

So, going forwards, the way we are looking at our product supply is really this investment into – the investment that we've put in place in the last couple of years to bring our factories to higher standards with the new GMP requirements that have been set and also driving much more simplicity in the portfolio both in terms of number of sites where we're going to cut 30 of them and this is actually ongoing already and also reducing complexity and number of SKUs. Why is that important? Well, by simply taking out complexity you can first of all in number of sites you can increase your capacity utilisation and your existing sites and that will drive costs down in cost in the PS space but also it will help in managing better the portfolio from a quality point of view and from a demand planning point of view. Customer service levels can also be improved. When I look at that across what is kind of best in class across the industry, I feel that by improving our demand and supply planning we have also an interesting upside to capture and this is really a drive towards using also digital much better in sort of statistical-based modelling to – from a previously maybe more human-based demand plan forecasting. A lot of opportunities I believe there to strengthen demand and supply. So, let me move to the efficiencies.

I won't go through this so much more in detail as Wolfgang this morning already mentioned, we're targeting 500 million in gross savings. We will need that money. We will need to strengthen our bottom line. You saw we have an ambitious plan to bring it from the sort of 20/21 range where we are today to 24. So, we're going to need some of these savings and we're also going to need some of that to reinvest in growth.

So, if I look at this turnaround plan I really see it in kind of three stages that is happening. This year was about setting the foundation. We've put a new leadership team in place. We've decided where want to play and we've also started to make already a couple of tighter cost control measures to kind of start to right-size the cost base. But frankly more rigorous change is needed for that and some of the announcements that you have seen over the past days and what you have seen this morning will really be executed rigorously in the next two years. Putting the right portfolio in

place, selling those businesses, right-sizing the cost and also recover the product supply situation. This will help us already to start to regain better growth momentum in Asia Pacific and Europe. In US the first step with the right size of the organisation, we're going to start to see already better margin performance in the first step.

And secondly, then, as I look at kind of what I call the acceleration phase when really all of these measures will start to kick in, when we start to benefit from better levels of innovation and also when US really starts to gain steam again, that's when we are going to really get back to the growth levels that frankly what we're all looking for is to get back to where the market is at three to four percent.

So, translating that into the numbers, we're basically looking at a delta from where we were last year of about 500 basis points on sales growth and about 300 basis points on the bottom line which basically will translate in a CAGR of two percent and an EBITDA growth of six percent in the coming years. Looking specifically at 2019 we will aim to get back to growth in 2019. It's going to be still a bit more back-loaded as in the first half we still face a lot of these supply hold backs but we are going to get back particularly in H2 and EBITDA will also start to move upwards.

So, I hope that you have seen this morning a plan to reinvigorate what is fundamentally a good business – a business where Bayer has been successful for many, many years, but has had a weaker track record in the past two years. There is a new team in place that is going to – that is fully committed to implementing this plan with a clear focus, really, on what we are good at, our core OTC portfolio. We're driving our innovation to a higher level and also strengthening our marketing and sales and product supply in the execution, really supported by a leaner organisation and a lower cost base. We are very committed to this plan and I thank you for your attention this morning and I look forward to some of the questions and with that I'm going to handover to Liam to talk about our very beautiful crop science business but I think we're going to first start also here with a video. So, thank you for your attention.

[Video presentation]

Shaping the Future of Agriculture

Liam Condon

Head of Crop Science, Bayer AG

So, good morning ladies and gentlemen and a warm welcome also to everybody who's joining us on the webcast. My name is Liam Condon and I'm in charge of the new, combined Bayer crop science business and it's my tremendous pleasure today to be able to finally present this new business to you. Stefan mentioned in his presentation that six years in the pharmaceutical business is an eternity and I have to say in the agricultural business, three years is actually an eternity and the last three years have at times really felt like an eternity. But, I hope you get the sense after my presentation today that it was worth waiting for to get to the point that we are at today and what I want to do to you today – with you today is explain the excitement that my team and I feel about the potential of our company going forward and what we are doing to shape agriculture going forwards. This new company that we've put together is now the combination of Bayer Crop Science and legacy Monsanto is a phenomenal combination. This is really a special company that we have now put together. This is not only the leading company in the agricultural space. This is by far the most innovative company in agriculture in the world.

And I'd like to start there briefly and just talk a little bit about why on earth do we even need more innovation or do we actually need more innovation in agriculture? I would argue, and this has come up already in some of the earlier presentations. There's probably never been a more important time for more innovation in agriculture than today. And I'm always amazed when I come back to the UK that the amount of time and energy that's spent discussing Brexit. And you really get the sense that this is overwhelming, the time and energy that this takes up. But there are actually more pressing issues out there. They're just no always as obvious. But this fact, we talk about it lightly, the fact that there's going to be an additional two, two and a half billion people by 2050. This translates into an additional, about, 80 million people a year. The entire population of the UK, plus throw in another approximately 20 million every year for the next three decades are coming onto this planet and we don't have more land and we don't have more water. We've got limited natural resources. Everyone needs to eat. Everyone will need to be fed. Everyone needs space to live in. This is a tremendous societal challenge that we face and it is one of the reasons and I think we're aligned here both with the UN and with the most recent G20 announcements and statements that there is a huge need for more innovation in agriculture.

There is another mega-issue at play here. It's not just about the population growth. We also have the topic of climate change which is massively underestimated in agriculture. I think again, I'm originally from Ireland and we actually kind of like climate change because we finally have a real summer. I used to remember growing up as a kid. Used to rain all of the time and now actually the sun shines during the summer. But many, many places are going to be affected very negatively over time. It doesn't happen quickly but over time the planet is heating up. Weather is becoming more and more volatile and this is becoming – will become over time a bigger and bigger challenge for agriculture and there's nothing more damaging to agriculture than drought and excessive heat, a lot of rain is kind of okay , cold tends to be okay depending on the timing, but drought and heat tend to be really tough from a productivity point of view for agriculture.

So, just maintaining the status quo, if you think about climate change, what's going to happen over the next decades, just maintaining the status quo of what we need to supply today will already be a significant challenge. We need to increase productivity just to stay still. But we can't stay still because there's going to be an additional two plus billion people that need to be fed. If we map this out from a demand point of view, what that looks like, for example and only goes to 2030 but for two core crops – corn and soybean, you can see a CAGR here of about 3%. Doesn't sound so dramatic but if you add again this overall situation that we've limited natural resources, you've limited land, limited water, and we still have to obtain this growth. If you were to translate this growth into additional acreage, additional arable land, to get this in one year for both corn – the increases in corn and soybeans, this would be basically all of the arable land in Germany. Phenomenal amount. It's not going to happen. Just think of the amount of trees and forests that would have to be chopped down or houses that would have to be demolished to make up agricultural space, it's not going to happen. So, we have to make more of the land that we have and increase productivity on the land but do it in a way that is environmentally sustainable. This is the challenge that we face and this is the challenge that our new, combined company is stepping up to.

So, I'm going to explain very briefly and you might think this is a pretty innocuous slide at a capital markets day because there's not one single number on it. But it actually summarises our entire strategy. The numbers that you will see afterwards, they follow from us implementing the strategy that is outlined here on one page. This is the heart and soul of what Bayer Crop Science as a combined company is about.

So, let me just briefly walk you through what's on this slide. You can see that there are three circles. This is what we did when we put Bayer and Monsanto together. We said we'd take the world's leading seeds and traits business, the world's leading biotechnology business and

agriculture, just Monsanto, the world's most innovative crop protection portfolio on the Bayer side but also with biological capabilities acquired on the Monsanto side, together with the world's most digital ag platform which I'll talk about a little bit later, put this into one company. This is the phenomenal combination that we're talking about. We're clearly – and I will show this. We're clearly the industry leader. We've set ourselves the purpose to shape agriculture for the benefit of farmers, consumers and our planet. Not reacting to what's happening in the industry; shaping what's happening in the industry. And doing this again for the benefit of farmers, consumers and our planet and we do that right and our shareholders will benefit tremendously.

We have set ourselves the mission that we're going to generate more innovation faster than anybody else in this industry. We're going to pioneer the digital transformation of agriculture and we're going to work towards setting entirely new standards of sustainability in agriculture and I'll talk about all these points, always with a very rigorous execution focus on delivering on our operational targets. And we put all of this together and put it into one package that is deliverable to a farmer in the sense of a tailored solution – what we call a 'tailored solution'.

What's the tailored solution all about? It's all about dealing with variability that is inherent on every single farm and offering the grower a better choice more suited to their specific needs as opposed to a standardised one size fits all type of solution. This in essence what our strategy is about. Now, I know several of our competitors have also had capital markets day and I'm sure you're tired of hearing that everyone is the leader in the industry and I learned in the early days of marketing that depending on how you define your market, you can always be the leader at something. But there is only one leader. And we prefer not to have – I mean, we have a lot of footnotes on these slides. They tell you what the sources are. They don't try and redefine the market size so they're inclined to be number one at something. So, you can see these are pro forma numbers of course. They all change going forwards. What doesn't really change is the relative gaps down to the next sized companies. You can see in this industry, this is a pretty formidable position that we have with a vast array of very well-known brands in the agricultural space. We're also a company that has a unique split between seeds and traits and crop protection. There's nobody else who has such a balanced split between the two and a very, very strong leading position here.

So, how that leading position breaks down, then across crops – and again this is the entire crop view, seeds and traits, crop protection –and looking at the major crops – corn, soybeans, horticulture is fruit and nuts – fruit, veg and nuts and this type of area, cereals. And we've added digital farming without a value attached to this but I will talk specifically about this where we will see the value of the digital Ag platform.

In all of these areas, we are clearly number one, which is also not a big surprise if you look at the previous slide. It's approximately a 90-billion-euro market and we're looking at CAGRs going forwards of approximately 3%, so a market estimate going forwards of 3% so a market estimate going forwards of 3%. I'll come back to this as well. How – our footprint then in those crops breaks down geographically – looks like this. So, you could say we're basically – we have a diverse crop portfolio and a diverse geographic portfolio as well but an exceptionally strong process particularly in the Americas – North and Latin America with about 70% of the entire business and that's not completely unusual in the sense that the Americas are major exporting nations from an agricultural point of view. So, this is where, clearly the bigger part of the business is. Europe, we have a very strong presence. Asia Pacific clearly looks underrepresented. I would say is underrepresented. Amongst the international companies we actually have a strong position. The issue in Asia Pacific tends to be highly fragmented, often genericised markets and what we're seeing more and more of, if you take the example of China as one example, a move by governments also from an environmental point of view to actually bring in more innovation, lower

dose, better efficacy products into the markets and we believe new opportunities are opening up here as well. But this – the current state of the market explains a little bit why relatively we're a little bit smaller here.

Now, if you break this down to seeds and traits and crop protection, you see an interesting split here. 90% of our seeds and traits footprint is in the Americas. 90% is phenomenal. It's about 400 million acres. This is really quite tremendous. Only 50% of our crop protection sales are in the Americas. So, think about – and we talk later about synergies. Think about the potential here. We have this tremendous seed and trait footprint. Access to the market and we have a relatively – underrepresentation of our crop protection portfolio. So clearly there's opportunities here to lift some of that crop protection portfolio onto that seed and trait footprint.

Vice versa, we have strong positions in crop protection in Europe and Asia Pacific, small seed and trait footprint. Here there are opportunities for us to lift some of that seed and trait footprint into Europe and Asia Pacific based on the strong crop protection business. This gives a hint of some of the sources – potential sources of near-term sales synergies that I will come back to later on. So, this is the commercial footprint, incredibly strong penetration into the market. The reason we have this strong penetration and presence in the market is because we have the most innovative portfolio. What's behind that, and again the combination here is really pretty phenomenal we have by far the number one technology platform in the industry, and we'll go into that in a minute. Well over 7000 scientists dedicated to research and development.

And what you can see on this slide is an R&D spend which is a pro forma number, again 2017 these will change going forwards but what will not really change is the gap or the relative distance between us and the next competitor and you can see this is a tremendous gap. We are all in from an innovation point of view. We actually licence a lot of our technology to our competitors. Some of our competitors are some of our best customers today. We are today the technology and innovation leader and we are completely committed to remaining and further strengthening that innovation position going forward and that's why we make such significant investments in research and development.

So, you can see the relative investments here and again the numbers will – the absolute numbers will change going forwards but I think relative to competitors, you get a sense of how far away we are here. Now, that platform that I spoke about, this is what really gets us excited and for us as a leadership team we've got to keep also reminding ourselves, we only – we're allowed to get together on 21 August. So, up until then we were two separate companies. We could talk to each other but not about the real stuff. Nothing confidential. We couldn't exchange anything that could be considered in any way commercially or from a pipeline point of view sensitive data and only from 21 August we were allowed both sides to look under the hood what we had and it was honestly a little bit like Christmas day in the morning when the kids come down and unwrap the presents and basically the research and development commercial teams have been working through this now. What we actually have in our pipeline, and I'll give some examples on how – what's coming here but start with the platforms that we have.

Again, the world's leading breeding and biotech platform for traits, highly innovative chemistry and biological platform and the most advanced digital Ag platform. So, if you're not familiar with agriculture, how do you think about this stuff, and maybe just a simple and overly simplistic analogy but just to give you a sense of what we're talking about here, so the heart and soul of an Ag business tends to be the seed. The germ plasm, this is what grows in the ground and this is the most important purchasing decision that a farmer is going to make is, 'What seed do I buy?' and this is a really important decision because you take that decision once a season and it better be a good decision because you cannot go back a month later and change that decision. You put it in a

field and either it grows and you get a return on your investment or it doesn't grow very well and you don't get a good return on your investment. So, this is the core of the business. The breeding side is the quality of the germ plasm that we have. We have the world's leading germ plasm library in all of our strategic crops. Absolutely phenomenal germ plasm library here. Then you have the biotech side. The traits are in essence genes that convey certain properties to a plant so for example to protect it against pests or to give it herbicide tolerance and this is like if the seed was the hardware then the trait is basically the software and it's built-in already to the seed. These two go hand in hand.

Now, you've got chemistry and biological. As crop protection you could think about these as – in the same analogy, these are the upgrades that you can buy. If you play Xbox or PS4 or any of these games you know you can constantly buy upgrades depending on the situation you're in and again this helps you protect your crop but also protect your yield throughout the season. And you can use – you can buy all of this individually but if you develop this from the beginning as a holistic system, this is incredibly powerful. So, you have a high-yielding seed with a trait and that trait allows you to bring a specific high performing chemistry or biology onto it and you attach that to a digital Ag platform that is gathering data about what is working best on a field and what's not working so well and feeding back into an algorithm that we can take – then take smarter decisions and help farmers take smarter decisions. And for farmers that means decisions that will help them increase their yield, optimise their use of inputs, through that optimise their own return on investment and do that in the most environmentally sustainable manner possible. This is the system that we have now at our hands and put in place and this is really why we're so excited about the future potential of this company. Now, of course that's only worth something if something is coming out of it and there's an awful lot coming out of the combined pipeline that we now have. There'll be a lot more to come. Again, we're only at this for three and a half months, literally. So, this is a summary of where we are today but already today what you can see here is 75 projects, very significant projects: seeds and traits, crop protection, also digital and of course we have hundreds of new hybrids and varieties every year – every season. So, we're constantly refreshing the germ plasm base and constantly trying to increase the yield potential of the germ plasm and this is the core and then we have all the other advancements and you can see here already an example, the advancements already in 2018 50 advancements already here. We've got an initial peak sales assessment of 30 billion in here. This is non-risk adjusted and clearly this will be developing further over time.

And I think here it's important to acknowledge that there's a difference between the seed and trait type business and crop protection business. Seeds and trades are constantly getting refreshed every few years. You're developing biological products. You're working in a biological system. You've got to keep this fresh, keep developing it forwards and a chemical crop protection product, it's a little bit like Heiko's consumer health products. This – these can have extremely long lifecycles. 40, 50 years is not unusual. So, there's a difference here in the quality here of the new products but it's not only new products. It's also lifecycle management same as consumer health, is a really important part of our business. And you can see a breakdown here by crop of where we see the sales potential and I'm going to give a couple of specific examples here as well. This shows the near-term launch – key near-term launch as we actually didn't fit everything on here but already here you can see up until 2022, this is an exciting pipeline. Just this, what's on the table here, we expect this alone to resolve in peak sales potential again of 17 billion. And if you take a few examples here – corn. So, just as one example now, what's coming, so we have our constant germ plasm upgrades and we have on average 7 bushel and acre yield competitive advantage over competitive products so this is how we measure the relative competitive strength is often in terms of yield, which is measured in bushels per acre, what does that mean?

So, if you take corn, maybe an average farmer has 140 bushels for an acre and corn, if you were good you might get four dollars for a bushel. Now, if you can get four or if you can get an additional seven bushels per acre multiplied by four and you 1,000 acre farm, that's real hard cash. A lot of money for a farmer and a very significant additional income for no additional effort if you have the right product. So, just as an example of the relative importance of constantly upgrading the germ plasm, we have a new product now that we're quite excited about, NemaStrike, coming to the market in 2019. This is a product that deals with nematodes. Nematodes are tiny worms in the ground. Often farmers don't know that they have a problem with nematodes. What they will notice is that their yield is possibly declining year on year, or they're not getting the yields that they used to get and what's happening is that these nematodes are eating up the roots of the crop and basically hurting the ability of the plant to give a vibrant yield. And now we've launched this new product, which is a nematicide which tackles this problem of nematodes.

We're very excited about this going forward. If I look at soybeans, we're in the middle of launching Xtend. We launched in 2017 so we're in the second season. Xtend – Roundup Ready too, Xtend. soybeans has two herbicides, so Glyphosate and Dicamba, and the new formulations for Dicamba are XtendiMax and this has been the most successful penetration ever. The speed of penetration of Xtend and soybeans in the US has been phenomenal. In season one, 25 million acres. In season 2 this year 50 million. 50 million acres. Just think about the logistics behind that to get 50 million acres of penetration and this will increase again next year as one example here. Then we have, of course, our germ plasm upgrades. In Brazil, we have the Intacta platform. US herbicides, so weed control, is the biggest problem. In Brazil, besides weeds, the biggest problem given it's a tropical climate is often insects, pests that will eat up the crop so Intacta is basically a trait to deal with pests is the most important platform for us there.

And what we have coming and what we're very excited about is a product called XtendFlex in soybeans, which is a three-way herbicide and again farmers tell us again and again and again that apart from yield their biggest problem is dealing with weeds and they need more options and this is a three-way herbicide that apart from Glyphosate, Dicamba and will also include Glufosinate and we've already launched this in cotton, had tremendous market success in the space of cotton, which you will see from the numbers as well and from competitive reports and as many of you know, a lot of cotton farmers are also soybean farmers and they're all waiting for XtendFlex to come on the market for soybeans as well. So, we're looking very much forward to this.

One other one I mentioned just here on the slide and we may go on, but you can't help but get excited about what's on this. Fox Xpro fungicide in Brazil apart from pests eating up the plants, again given that tropical climate, fungal disease is a huge issue and there's a lot of anticipation in the market now as we launch Fox Xpro that we will have a significant market penetration. So great pipeline here. One more element that we're extremely excited about beyond the seeds and trades and molecules that we're developing is the whole area of data science as Bayer we had built up a nascent digital farming platform, which we actually had to divest as part of the regulatory process. What we acquired was a fully-fledged, extremely professional digital Ag platform in the source of climate cooperation from Monsanto and this is really a phenomenal set-up that we have here. I was just with farmers a few weeks ago in North America and harvest time, soybeans and just the way you visualise this, rather than walk you through the text, this is an integrated data system that helps famers take smarter decisions. So, the farmers in their tractor, harvesting, they have an iPad and they can see visualised exactly what's happening on the field and they can see exactly how much yield they're achieving in that moment on that part of the field.

You could say this is nice to know information but so what. Well, the so what part that's really relevant is this is incredibly important information for the next planting season, which usually comes down to things depending on what's being sown is really important information because

what we will – what you can immediately see, and this is all visually clarified, some parts of the field are highly fertile, high yields. Some are – have a very low yield. And this has implications, then for the seed choices you make – how much seed to you plant and at what density but also for the soil fertility, how much Nitrogen should you apply to improve the fertility of a certain part of a field. So, you get down, literally, to a granular level on the field and help the farmer make much smarter decisions that will again help them increase the yield in a more sustainable manner and through that also help them improve their return investment. The platform we have has today over 50 – 5-0 – partners who bring a variety of additional insights all into one integrated platform where all of the information is completely visualised and completely actionable for a farmer. It's extremely easy to use, extremely compelling and the system is growing day-by-day and it's not something where the farmer benefits and us through the additional value it creates for the farmer, but there's also an element in how we run our enterprise that's important here. We're gathering more data than ever before. This data feeds back into a research and development and helps us develop better products.

It also feeds into our product supply and helps us improve the cost of goods position of our seed supply. So, there's a true enterprise benefit in here and we actually believe we probably have more real-time competitive data – data on competitors' products than our competitors have because we are picking up more data than anybody else out there. So, a fantastic system, something to get very excited about. Again, you'll hear people telling you leading system, there's only one out there that has 60 million paid acres. You can get on a lot of acres for free. This is 60 million paid acres. We'll go to 90 million next year, exceptionally high brand recognition according to independent research and this is really a very strong penetration of the system. What we're dealing with here in essence, and this really brings it down, this whole topic of tailored solutions and the connectivity now to the digital transformation, I hope with just a simple example will become more apparent.

The way we look at it, yield is a function of genetics, so the germ plasm – the seed, of which we have the best in the world. It's a function of the environment, weather and variability of the soil, of which we're getting way better at predicting, analysing, assessing, and it's a factor of the farming practices. So, the 40 big decisions that farmers take every year. The better those decisions are and the better – the more you can optimise the three components, the better the outcome will be. This is in essence what we're working towards when wetalk about tailored solutions and the reality is, and just to explain how much yield is actually left in the field, you take the example of soybeans. There's a yield – a soybean yield competition every year in the US and you've got the average of all farmers – US highly advanced market so you would assume everybody kind of knowns how to farm soybeans and there shouldn't be too much differences in the yields, but in actual fact there is a three-fold difference between the average – what an average farmer gets and what the absolute best in class farmer who optimises absolutely everything on the farm. That is a tremendous additional benefit. Three times and you can see it in soy, you can see it corn. You can map it for other crops and this is improbably the most advanced agricultural market in the world. Can you imagine what the gap is in markets that are less developed? It's going to be probably significantly more and this is something that we are addressing with tailored solutions.

I'll give you two examples of things we're working on to give you also a bit of a sense of excitement that we have and the transformational opportunities that we see going forward. One is in general we believe this industry needs to move more towards outcomes-based models. We've in general believe been perceived as an inputs industry, getting paid, for example, for volumes. And we really should be paid for outcomes and based on the value that we create. What we're working on, and to give you one very specific example, and here you can see the beauty of the breeding – the biotech, the chemical, biological portfolio coming together with the digital platform. We know today that if you apply a fungicide to corn, to corn seed, on average you'll get an eight bushel per

acre increase. That's significant. That's a good reason to use more fungicides yet only 15 to 20% of farmers in the US actually use fungicides.

So, why is that? The reality is that you could actually – in some cases you could get a 20 bushel per acre increase but there's also a risk that you might get a 10 bushel per acre decline in productivity and up until today or very recently, nobody knew when to use – which product in which situation. With the data that we have gathered, and we have a predictive algorithm we're extremely confident in being able to tell farmers exactly where and when they should use which fungicide to get this optimal outcome and if they don't get the outcome, we can – we have a performance guarantee in place and we can then give a rebate back but we are so confident of the predictive capabilities of our algorithm that we are willing to go in this direction.

This is something that we have been testing and as we test it, the predictive capability of the algorithm gets better and better the more data we collect. This is something that we are starting to roll out, also testing other models but in essence what we're doing here is reducing – trying to reduce also the risk of the farmer for a negative outcome and trying to ensure that they have an optimal experience on the farm by applying a data-based solution, which again combines the best of biotech, breeding, chemistry and biological approaches but in a way that reduces the variability for the farmer. This is one example – outcomes-based pricing – something that we're very excited about.

Another one is in the area of corn, a crop-based approach, both breeding and biotech. But again, you will see the – you can see the relevance for crop protection and also for the digital platform. We're working on what's called short stature corn. Many of you, even if you're not familiar with Ag you've all seen big corn fields, they look wonderful. The problem is when it's very windy, you can actually lose a lot of yield because some of the plants will fall over and there's great difficulty in doing proper precise crop protection later in season because the plants are so high. We've developed a system that's now in Phase 2. Short stature corn, so much smaller, much shorter corn, where we believe we'll be able to at least maintain the yield, and we can combine this then with a much more precise crop protection system and all backed up and based on a data – an evidence-based approach from a data point of view. So, this is something that we think short stature corn will actually revolutionise the corn market and corn is the single biggest value crop that's out there.

So, this is something that I think we can also be excited about and these are only two examples that I share with you to give you a sense of what direction we're thinking, both in new business models, and completely new approaches to crops and these approaches combine breeding, biotech, chemical, biological technological platforms and with a wrapper of data sciences around it. This is really quite exciting.

What that translates into has been explained also by Wolfgang. We're going to grow – our ambition is clearly to grow above the market. We're forecasting a CAGR of three percent growing forwards and we're forecasting here indicative guidance for 19, ballpark four percent, a CAGR towards 22 of above 4. The main message is it's above market. We haven't factored in a cyclical upturn so a big swing up. If that happens, we're better positioned than anybody else to benefit from that and that growth would be higher but we cannot predict when that's going to happen so we just keep that as upside and flag that here.

The margins going forwards – indicatively 25% for 19, end of February when we have our annual reporting. We'll give the final guidance but just to give you a sense of how we're modelling things and then from 2022 a target of north of 30% and an industry-leading margin, which you should expect with the innovation potential that this company has. The growth will come from all crops, all geographies. I'm not going to go in further into this. This just gives you a sense of from which crops, which major product areas and of course on top of all of this we have the sales synergies will

be kicking in overtime as well. One thing we're often asked about is – so, what about the integration: how is this going? I've been really positively impressed since we've been able to get together. We had mapped out the cultures of Bayer and Monsanto in great detail and placed a lot of emphasis on doing trainings around the topic, also, of cultural awareness, cultural sensitivity. Our practical experience has been – if you take a bunch of people, and this starts with my leadership team, which is 50 – more or less 50/50 between Bayer and Legacy Monsanto, you take a bunch of Bayer people – 10 people 10 Legacy Monsanto people and put them into a room, give them some challenge, something to work on and an hour later send in any objective neutral observer who doesn't know who the people are, they will not be able to tell you who comes from which legacy company.

That has been our consistent experience and you can check with all of my colleagues who – those of you who are here today and joining in the afternoon session will have the pleasure of meeting later on. It's been a phenomenal experience because there's so much more similarities as opposed to difference in both companies, which we placed a huge emphasis on business continuity and customer focus. We know there's always a risk when you do big integrations that you might drop the ball from a customer point of view. We've been super sensitive about this and we are explicitly, as a leadership team, and it starts with us and my leadership team, we are getting out and talking to all key customers personally and we expect the same of all of our leadership teams. And even though we've only been at this for three and a half months we already have the first three leadership levels – have already been sited, are in place. This company works. It functions. IT functions. HR processes are in place. People get paid. This is a functioning company that is extremely focussed on customers. Synergies, I think I don't need to go into because Wolfgang elaborated on this quite explicitly. €870 million cost synergies, 170 million sales synergies and you can see the ramp up over time. Next year 25%. You might ask what my confidence level is in achieving these synergies. I would say it's not a matter of confidence. These are commitments. These are absolute commitments. We will achieve these numbers. The only question is how do we achieve them but it's not a question of will we achieve them.

I want to leave you with one additional thought before we wrap up. A company of this size with this much innovation potential needs to also – and Heiko spoke about the importance of purpose in today's world, we have a social responsibility if you look at again the potential that this company has and our impact on agriculture and we need to make sure that we're using that responsibility in the right manner. And we have identified two topics that we want to advance significantly in the entire industry. One of them is small-holder farmers. We want to empower over 100 million small-holders. This is something that we are now working on extensively. It's – we still need to put in place detailed KPIs about how we're actually going to do this. But there's a clear commitment that we have got to be investing also in small-holders. And this is not to be confused with corporate social responsibility. This is simply an investment in the future. That 2-2.5 half billion additional population who's coming into the world, they're not coming here in the UK. They're not coming in the US. They're not coming in Europe. They're all coming in Africa and Asia.

Farming there is small-holder farming so we have got to find better ways of finding small-holders in these geographies and that's why we have a strong commitment here and we see this as an investment in the next generation of customers for us as well. Second area is the ecological footprint of agriculture. Agriculture today, from a climate change point of view is probably perceived as part of the problem with carbon emissions. Also, from a biodiversity point of view, we believe there is a huge opportunity to help make agriculture part of the solution with at least carbon neutral agriculture and this is something that we want to advance significantly. Very important on our agenda going forward.

The last thing is about the how we work. This is a highly responsible company. We're going to be working in a very collaborative manner. Collaborative means all this innovation that we generate, we don't only keep it for ourselves, we also licence this technology to others. So, also an important source of income for us, but this is something that we're committed to. We're going to work in a very transparent manner. We believe transparency is the currency of trust and as Bayer we have started various initiatives to make all of our safety data for all of our crop protection products for example, completely available online in the manner that average people can actually understand. To help them understand these products are completely safe and you don't need to be concerned about them. This is something where we're at the forefront of the industry and something we want to push further and inclusive as I mentioned. We're not only going to be there for the big and better income farmers. We've also got to be doing something that is helping smallholder farmers and making investments in the future here.

So, key messages to wrap it up for you all. We're completely focussed now on ensuring a smooth integration. There's been great progress so far and as we do that we're going to strengthen an already strong leading position. We're committed to generating more innovation faster than anybody in the industry. We want to pioneer the digital Ag transformation. We're going to be extremely rigorous and disciplined on delivering on our financial targets and as I mentioned our synergy targets, our commitments. We're going to be setting new standards of sustainability in agriculture and the way we work is going to be extremely responsible, transparent and inclusive. So, this I'll just leave you with this. This is the bunch of people that you'll be meeting in the afternoon sessions. I'm actually the chairman of CropLife International, the industry association for the crop sciences and there is a tremendous amount of very, very talented people in this space in the industry. But this team that you're going to meet this afternoon, this is the most talented team in the industry. This is an extremely passionate team and everyone is working together extremely hard to truly shape agriculture for growers, for consumers and for the planet. And as we do that, our investors are going to benefit significantly. Thank you very much.

Questions and Answers

Sachin Jain, Bank of America Merrill Lynch

Sachin Jain, Bank of America. A few financial questions, please, firstly on full-year 2019. The EBITDA bridge you've put up start – suggests €11.9 billion, which is shy of consensus at roughly €2.4 billion. Just imputing the divisional EBITDA suggests a €300 million shortfall on Pharma, roughly €200 million[?] on Crop. So I wonder if you could just give some colour around those shortfalls? How much of Pharma is due to whatever you assume on recovery from Pharma remediation? And how much of Crop is the synergy phasing, given you've obviously assumed some in the pro forma base?

Second question on the exploring options of buybacks. Can you just explain what the driver of whether you will or when do that is? What the timing of a potential decision would be? And how dependent that is on litigation outcomes in the early part of next year?

And then my final question, I and the market have learnt that doing forecasts for Bayer in the last six months is rather difficult. So I wonder if you could talk to the €6.80 and the €10 for 2022; and discuss upside and downside drivers for that, at a divisional and Group level? What are they key risks that still exist in those forecasts? Thank you.

Wolfgang Nickl

The shortfall was of consensus. It's a little bit hard for me, because I don't know all the detailed models. We gave you our assumption on an EPS basis that portfolio effects; and also the opt-in from J&J were probably not completely reflected in the consensus models. I can just suspect, but I think people may have also overestimated the snap-back from the supply situation, where this year we had about a €300 million impact. Like we said in Q1, the FDA is coming in, looking at the Leverkusen factory. And this is not business that comes back overnight; this is business that you need to earn back.

So I would suspect that people have probably built in a bit of a snap-back in the models. You have heard us talking about sensitivity of revenue and earnings to FX. So 1% change of the euro versus our currency basket impacts revenue by €340 million, and €100 million on the earnings line. I already mentioned we took constant currencies into consideration. If you take spot rates, you come out to higher results; and then I can only speculate, probably some people have put in higher growth rates in some of our markets, for instance if the ag cycle would have kicked in next year. Again, I think those are probably some of the things that we need to get a look at to refine the models over time.

Buybacks. Again, as a reminder, we do a disciplined capital allocation, so we will always look at it holistically. We want to do our dividends, we want to grow our dividends, we are very, very committed to our target rating, so we're going to look at de-levering. We will continue to invest in the business where we see high returns on bolt-on acquisitions and in licensing opportunities. And at the time when the cash flow from the divestitures comes in, which will start, most likely, in the middle of 2019, we will make that decision. I don't think that litigation plays a major role in that. If anything, that will take us several years before that comes to any kind of a conclusion.

And finally, 2022, the puts and takes. First of all, we believe the numbers are absolutely doable. If you look at… A risk is always also an opportunity. The biggest sensitivity on the numbers is growth, so the 4% growth that we have modelled, approximately. That goes both ways, if the markets grow a little bit less or a little bit more. Second one is FX, that we just talked about. And the third one is the one that is a lot of hard work; but I'm not too worried about it, because it's our hand, and that's the execution of the efficiency programmes. I don't think there is much upside on that, because it's a pretty stiff programme. But we're going to execute it, but it's in our hand, and we've a few years, and in many cases we have the detailed plans. So I'm confident that we can get into the €10 range in 2022.

Werner Baumann

Maybe one small addition to what Wolfgang said, and that is, there might be another disconnect, or some need to catch up on where we truly are in the cycle, and we're still in the models compared to also some of the proxy filings that date back two years, you know, that there was no real coverage on Monsanto over the last two years; also no further Capital Markets work and forecasts that were given. What is very important in that context is the question: Are we trailing the market? Are we performing in line? Are we performing better than that? Always relative to our peers, and where the cycle is.

And as Liam mentioned, as I mentioned in my introductory remarks, as you will hear this afternoon, our business is in very, very good standing. We continued to grow at and above market throughout 2017/18, going into 2019 and the next years to come. So we have not lost any of our competitive edge. As a matter of fact, we will continue to expand on it going forward. I think that's very, very important.

The anticipated and modelled recovery of the cycle, while you could see some signs that then also for geopolitical reasons, e.g. the China/US trade war did not really materialise. The [inaudible] model was based on market research. It did not happen, and we are, let's say, in best company with all other companies and our competitors on the other market on the cycle as well now.

Christian Faitz, Kepler Cheuvreux

Christian Faitz, Kepler Cheuvreux. Question for Liam. One of the key objectives of buying Monsanto was actually a sales integration, integrating seeds and agrochemicals, and offering the farmer of your customers a yield promise. Can you give us a rough timeline on when you see first products in the market which actually offer the seed promise? Are we talking 2025, 2028, something like that? Thank you.

Liam Condon

Thanks, Christian. So I'd look at this, maybe, with two different perspectives. One is products that we start developing entirely new from the beginning. So in the research stage, given that we've only come together now since the end of August, we only start that now; and those entirely new systems will literally take a decade before they get to the market, to be realistic about it. However, we don't have to wait that long to get the benefits of the integration, because apart from the fact that we already have smarter combinations that we can put in place, enhanced through the digital agronomic system that we have set up, we also have technical solutions that we can put together in the shorter term. And I think near-term, the bigger opportunities and the sales synergy opportunities, will all be strongly enabled by the digital platform, because we can give much more detailed, precise, tailored recommendations to growers, and go towards what I mentioned earlier on: performance guarantees, which is something that would be very unique in the industry.

So the synergies will already kick in, and in essence are now immediately, going into the new season. And we'll ramp up over time, based on the digital platform and the entirely new system-based products that will take a decade of research alone.

Richard Vosser, JPMorgan

Richard Vosser, JPMorgan. Just going back to the 2019 guidance, If I add up the divisional guidance, and make some assumptions on Animal Health and the reconciliation, I get above €12.2 billion for EBITDA for the Group, so I think I get higher than that. So what am I missing? The margin targets for each division seem to get above that.

So the second question, just thinking about the long-term targets, I see from '19 to '22 an EBITDA CAGR of about 9%/10%, or 9%. But on EPS, €6.80 to €10 implies 13.7% growth of CAGR, so that seems more than just deleveraging, so what's going on with the growth rate there, if possible, or please correct me if I'm wrong.

And then just a couple of Pharma-related questions. Just thinking about the manufacturing issues on Pharma into 2019, there's some spill-over that was alluded to in Consumer; but in Pharma what sort of impact shall we been seeing? €100 million/€200 million impact in that first half?

And just thinking about China as well, big emphasis on China growth. And thinking about that in Pharma, what price pressure and volume pressure should we think about there on some of your older products? Thanks very much.

Wolfgang Nickl

Second one. First one of all on the EPS. I think the vast majority of the difference is indeed in the de-levering, because the share count is stable, and the tax rate is stable, at least from a pro forma perspective. So the vast majority comes from de-levering. I showed you a little bit on, I think it was €0.30.

And then I don't know what else to add on the 2019. You've got our indicative guidance. I'm pretty sure we added up the numbers correctly on a going-concern basis; and we'll provide more colour there as we go into the final guidance in February, I think end of February. Again, I think you'd need to look at your models; you need to look at the J&J opt-in; and you get a look at the portfolio measures; you got to check your FX rates one more time. I'm pretty sure they add up. We got to the €11.9 billion plus then the €300 million effect from the added depreciation from IFRS 16.

Stefan Oelrich

So maybe about the China question first. So with the GQC[?] initiative in China, we're having some pressure on more mature products. So this will materialise in our case and the case of Glucobay, so we'll have some both volume and price pressure there. Going forward, we've estimated that to already have an impact next year. It will have much less of an impact on the Adalat business, because the technology for Adalat, we don't see any generic play right now there, so – and those are the two older ones that are significant. And then we have for Xarelto, we've already taken down price in the context of our listing, in the reimbursement list. So we should be covered price-wise there. We've much, really to an incredible extent, compensated that with volume increase. So the volume opportunity is significant there.

And to the supply situation, so we've stated – and you need to help me out, Werner – we've stated that we have an impact, total impact, on our supply situation; and we said that would move a little bit across from one year to the other. And so we will have some impact in the first half of next year of – for Pharma as well, but it doesn't increases the totality of the impact that we had communicated before.

Werner Baumann

Wanting to confirm what Stefan said. You should look at the growth rates now, Richard. They're inclusive of maybe the fading-out of our supply issues in the Leverkusen supplies. And as I mentioned during my introductory talk, we are going to have the preparation of, and then also the inspection, the re-inspection, of the site, in quarter 1. So that naturally means that we are not ramping up to the capacity we would have absent that inspection, because things are going a little bit slower due to the inspection, but we should be in fairly good standing, then, in the remainder of the year. And there will also be some trade-off positions that we are going to make between different product groups. So the extent to which we are exposed net/net is something that we will manage within the growth rates that we have mentioned and that we have given.

Michael Leuchten, UBS

Michael Leuchten, UBS. A question for Wolfgang: if I combine the net debt target for this year, and then the long-term target with the free cash regeneration, is the delta simply what you have earmarked for acquisitions, or is there something else?

And bigger-picture question for Liam: the last revolution we have in Crop via GM was a mixed blessing, because farming economics have changed. And the industry struggled to really find a

balance to deal with that. So going forward, the next-generation or innovation cycle that's coming, how is the combined entity able to deal better with that than bio was able to do on its own?

Wolfgang Nickl

Thanks for your question, Michael. Indeed, we made certain assumptions on the net debt. I'd like to start with IFRS 16, since it's a new topic, and of course you've got to add that additional billion that we have for now that will change. We have modelled-in a growing dividend, and I'll just put a little slope in there, that of course consumes free cash flow as well. And then we put a place-holder in for M&A. Some of the stuff we know, like the commitments we have made with Leaps and Casebia, BlueRock, you've heard that we're putting. And we're putting a couple of assumptions in there that we do similar deals with a little ear-marked amount, a couple of hundred million per year in there, and that's the bridge to the net debt forecast.

Liam Condon

Yes, so the way we're thinking about it alluded to a little bit with the platforms that we now have in place, a converged platform between Breeding, Biotech, Chemical, Biological. And then with the wrapper of data sciences around this, we believe we'll be in a better position to actually really help the farmer not only increase yield, which has been a strong focus in the past, but also to optimise the inputs, which will help the return on investment of the farmer, and will help the sustainability footprint.

And I think it's this combination going forward that will be really important. I think there's been probably an over-emphasis on yield at almost any cost, potentially to the detriment of sustainability. This is something that with a combined platform we can address in a much more holistic manner; and Bayer, with the platforms that we have, will be better able to address this than anybody else.

Florent Cespedes, Société Générale

Florent Cespedes, Société Générale. Few Pharma-related questions. First, Stefan, could you elaborate a bit, could you share with us the products, and which areas you see are the most exciting and the strongest potential for lifecycle management? And don't you feel Xarelto potential could be even stronger that the guidance which is available now?

And the consumer question: could you maybe give some examples from the strategy to grow this business long-term, of course innovation, but with regards to a switch from RX to OTC, could you share with us some examples? There are also some hurdles, some barriers, regulatory barriers on this front. Could you elaborate on this, please? Thank you.

Stefan Oelrich

So thanks for the question, Florent. I agree with you, Xarelto looks really good with this additional indication. And so you have to bear with me, I've been in the position for four weeks, so I'm actually working exactly on the question you're asking, but I'm not really having the full response to that yet. But I'm indeed looing with the teams, to see if there is not some good news that I can share with you once we have finalised that analysis. But I'm also more optimistic on lifecycle management with Xarelto, and we'll keep you updated as soon as we have something more solid to potentially adjust our guidance there.

Joerg Moeller

Starting with Xarelto, we have ongoing paediatric programme. We also are awaiting the VOYAGER data in the population that undergoes PTA intervention, that could, if successful, of course, open up yet additional population setting here. I think I mentioned in the presentation, if you look also in oncology, darolutamide, our second-phase 3 study, looking at hormone-sensitive prostate cancer patients. Vericiguat, we have started this year to look into a phase 2 study in heart-failure patients with preserved ejection fraction. Also with Eylea we are looking at a paediatric population.

So we are working, actually, across our late-stage portfolio on quite a number of different approaches, to really maximise the value of our assets there.

Heiko Schipper

Just a few comments on Switch, so OTC Switches are clearly mostly, primarily a North America play, obviously. If I – when I start to look at the sort of innovation success, this is obviously a very large potential incremental growth you can create in this category. I think in the past year a lot of our emphasis was on maybe reenergising the innovation pipeline of what we bought. And going forward with the new focus what we have on those five categories, I feel that we can actually start to look much more aggressively, actually, at Switch opportunities, because we free up resources to allocate to that space.

We have already prioritised lists of what we're working on. Obviously I can't give you the full detail of that yet, but as soon as I know, I will; but I can tell you that we are really going more after this. And also I found in the team that was brought over from the Merck acquisition is actually extremely good at it, but maybe they just didn't get enough resources in the past years, because we're trying to – some of the R&D resources were spent somewhere else. So it's high on my agenda, I think it's one of the bigger ones, if you can hit one of them, but we have a very good team there, so even within the industry has a lot of credibility.

Vincent Andrews, Morgan Stanley

Vincent Andrews, Morgan Stanley. Liam, I wonder if you could just talk to us a little bit more about the 4% sales guidance in Ag, and maybe break it down a bit between Seeds & Traits and Crop Protection; and maybe just within Seeds, what are you expecting in terms of price mix for the annual germplasm refresh? If you're not assuming any cyclical recovery, or are we using the same run rate as last couple of years?

And then also within Crop Protection, what glyphosate price? Are you maintaining the status quo today, or is there any evolution in the glyphosate price within that 4%. Thank you.

Liam Condon

Thanks a lot, Vincent. Let me try and give you a sense of how we break this down. So without going into the details of it, Seeds & Traits, on average slightly higher growth than Crop Protection, just within this average of 4%. And the pricing mix, the lift from a germplasm point of view, whenever we have this competitive advantage versus previous varieties, we always want to get a price lift in there, so they're priced at a premium, and that premium in a down cycle, as we've been in for quite some time, is lower than if we were at a higher end of the cycle. And until there's a further movement, then commodity prices, we wouldn't expect very significant premiums. But there will be premiums versus competition.

On glyphosate pricing, what we're clearly noticing, and this is in general for active ingredients and substances coming out of China, the prices have been increasing, and for chemicals this is linked. So for Crop Protection inputs, we can see also in our cost of goods that prices out of China are increasing. This is directly linked to the push of the Chinese Government from an environmental point of view, to basically shutting down a lot of the older factories. And with that there's partially a shortage of supply in China that's pushing up prices. This is pushing up also glyphosate prices, and our glyphosate prices, or our Roundup prices, are always priced at a premium to generics that are available on the market. So as the market price lifts, our Roundup pricing will also lift, and this is what we've been experiencing over the last couple of quarters.

Wimal Kapadia

Wimal Kapadia from Bernstein. A couple of questions on Pharma, please. So just first on larotrectinib: could you give us a better sense of how quickly you expect to reach the peak sales potential of €750 million? I guess the angle I'm coming for is that it's a very highly efficacious product, with limited competition; but can you talk about the roll-out of the next-gen sequencing, to identify the patients with the fusion mutation?

And then just on the division more broadly, I think it's widely appreciated that Xarelto is a big top-line and margin driver for the Company, moving forward. But could you talk a little bit about the other franchises or products within the division that will drive growth? So I'm just trying to get a sense of the underlying growth in the base business, ex-Xarelto; and actually is the ex-Xarelto base business actually going to grow in margins, moving forward? Thank you.

Stefan Oelrich

To get started with Vitrakvi. So I think you're spot-on. So his is not a product where we would expect a very fast uptake, because of the challenge that there is in identifying the patient. So this is basically a rare disease, and we need to make sure that the sequencing is done, so that these patients get tested. As we get along, there are two things. 1) Once you get on to this product, you're basically on it for life, which means, as we have strong responder-rates, once you get identified for this disease, you will stay on it for a long time, So uptake is slow, but then sustained durability on treatment.

We're seeing more and more sequencing being part of being more used in oncological treatments. We're seeing other treatments emerging that will require similar approaches. So it's not going to happen – so I can't give you the exact year, and then we wouldn't guide for that anyway, but it's going to be a slower uptake, but then sustained.

The second question, beyond Xarelto. Of course we continue to have enjoyed growth from Eylea in the coming years, and we believe that there again, with our lifecycle management and with our Phase IV activities, we can blunt very effectively some of the innovators that are trying to come into our space. And then we have regional good development, I was mentioning China, that is there to stay in terms of underlying growth. And then I think we can really expect some growth out of oncology beyond larotrectinib, so beyond Vitrakvi. It's too early to guide on Darolutamide, but it's going to be a nice completion for our product range. And so I see that in the midterm we're going to see a much more coming out of that oncology portfolio.

Markus Mayer from Helvea Baader-Bank

So the questions first of all, and maybe a clarification question on this costs related to these efficiency measures, this 1.7 times. Am I right that this is pure costs, so not including any write-downs, basically all of that, or most of that, is then also cash-relevant. First question.

The second question is on ag, digital ag, is that you have over 50 partners there for FieldView. Do you also have to have partners in the machinery area, like John Deere, which also have their own digital ag platform?

Third question is on your legal provisions on your balance sheet, which are related then to the costs of your lawyers, etc. Do you expect any kind of changes there, as it looks like that it might take longer for those legal actions?

And then lastly, free cash flow looks like this is something new, a new kind of focus area for Bayer. Previously management was in particular incentivised on core EPS. Is there also a change in the incentivisation for management?

Wolfgang Nickl

I take number one, three; and you can probably do four. So on the 1.7 factor, first of all, that includes all the actions that applies to the 2.6, and you're correct, that does not include write-downs. So the vast majority of this is cash-effective. You're third question, on the legal provisions, we continue to follow the same practice that we mentioned in the summer. We do not accrue for damages, because we can't assess the probability, nor can we assess the size properly. So we're reverting back to our practice to accrue for three years'-worth of cost of defence; and of course we will look at this on a rolling basis.

Werner Baumann

We'll hand it over to Liam for your Ag question. On free cash flow, it is already part of our objectives and out incentivisation, so it's being evaluated and weighted by the supervisory boards today, also for the Board. It's going to get more emphasis going forward, that's why we've also profiled it with substantially more prominence. Liam?

Liam Condon

On Digital Ag I can confirm that we do have collaborations with all key machinery makers. I think the most important part here is, we've basically developed a plug-in device that works on all major machines, so whether it's John Deere, or CLAAS, or whatever it is; and you simply plug it in, and through that you can tap into all the data that's available on the system. So it's incredibly easy to use for a farmer, and it's a standardised approach, a simple plug-in, and this is, I think, the key benefit of the system that we have, that's basically applicable across different machines.

Qi Li, Temasek

I've a quick question for Liam. What do you think is the risk coming from the growing gene-editing space on your crop business? And then another question similar: what is the impact of the potential development of online platform for your ag distributions?

Liam Condon

Thanks. So we don't see gene-editing at all as a risk; we actually see it as a tremendous opportunity. We have secured IP, through various means, agreements with Broad Institute, for example; our partnership with Pairwise; and we have a variety of internal projects ongoing in the area of gene-editing. We see gene-editing as a major scientific step forward. We think there will be tremendous application possibilities in agriculture; but it will be one more tool of many that are there, and is currently being used by our folks in R&D today. And from an IP point of view, we have freedom to operate, so we do see this as an opportunity.

The risk, or the area where we're concerned about is rather related to European legislation, and that fact the European Court of Justice has classified gene-editing as basically equivalent to GMO, which means the regulatory requirements for using this technology in Europe will be exceptionally high. So this will almost prohibit use of the technology in Europe unless the legislation is changed. We think this is a tremendous missed opportunity, particularly when you think of the sustainability benefits of an approach like gene-editing. So that risk isn't endemic to us; that's endemic to the entire industry. And it's not just the companies; it's farmers and society who will lose out here.

On the online platform, so there are various companies out there with digital platforms, who are working on what I would call 'enhancing transparency' in the industry, transparency about ground products, but also specifically pricing. And this is actually, for us this is a good thing. And let me frame it properly: transparency is great if you have the best products. Because then everybody can see clearly you have the best products. We have, and this is backed up by not only our data, but also the transparency data of other digital platforms out there, we have the best products.

And I think these transparency platforms, digital platforms, that are opening up, they will rather be a bigger competitive trend for the classical distribution companies, the Nutrient's of the world, as opposed to for us, because our model is basically to generate innovation, make it available to farmers. We don't see ourselves in the distribution business. We partner with others, to make sure that our products can get to farmers.

But we're in the innovation business, and then we make sure, through various channels and a go-to-market model, that that product gets then to the farmers in the way that they want to actually accept it. And that will be through multiple modes, and Brett Begemann will talk about this this afternoon, we've multiple channel approaches, and online is one of several opportunities that are out there.

Jeff Zekauskas, JPMorgan

Jeff Zekauskas, JPMorgan. It looks like you changed your pricing structure for digital ag, in that Monsanto used to charge a fee per acre; and it looks like what you've got now is a flat fee. So why did you do that? Is it to make it more attractive for farmers on a price basis?

And secondly, if you look at your crop chemical portfolio, how much of the portfolio is off-patent, and how much is on-patent. And do you expect the growth rates of the two pieces to be very different? Do you have a dynamic on-patent portfolio, or not so much?

Liam Condon

Thanks, Jeff. So on pricing we actually have a couple of models, and particularly in the digital ag space we're constantly trying out new models, new approaches, seeing what works. One, as you said, is the flat fee. So this is the annual subscription fee that's a model that's in place right now. As we develop new products, for example the Seed Advisor, or Advanced Seed Scripting Advisor, that is then a fee per acre in addition to the subscription fee. And then on top, we work towards these outcomes-based models that I alluded to earlier. So there's a variety of approaches, and I think in this digital space it's a kind of a normal evolution that you try out different approaches, and see which approach actually generates the most value. So that's in essence the way we're approaching that.

On the Crop Protection side, I don't have the exact statistics on-patent versus off-patent. But I would highlight this: I've spent over 20 years in the pharmaceutical industry, and of course one of the first things you learn is, off-patent is poison, and you lose – your sales fall off a cliff, and it's the end of the business. And this is completely different in this Crop Protection space. We basically, a lot of our products, and again, I don't have the exact statistics, but my guess is, most of

them are probably off-patent. But we keep them alive through lifecycle management, and develop new formulations; and you need to, because we're dealing with biology, so you need to keep developing the products further. And we basically, in essence, through lifecycle management extend those lifecycles of products, which as I mentioned earlier can be in the 40/50 year region if you do very professional lifecycle management. So we are less concerned about on-patent/off-patent, and more, I'd say, conscious about having a very professional lifecycle management system in place for our Crop Protection portfolio.

Jeff Zekauskas

Thank you very much.

Luisa Hector, Exane BNP Paribas

Luisa Hector, Exane. Thank you for taking my question. Just looking at the Pharma ambition to target the external assets, I wondered if you could say a little bit more in terms of the budget? Sounds like the budget is, we should think in terms of divestment proceeds after some buybacks and deleverage. But anything more on therapeutic categories, regions, whether you're looking more at early-stage or late-stage assets? And whether your limited US infrastructure makes you slightly less competitive when you're looking at those assets? Thank you.

Stefan Oelrich

So I'll let you talk about the numbers; and you are keeping timing as well. So we – and I think we had it in one of the slides, so we are getting, on rather short notice, some headroom to reinvest into external opportunities. We were showing here a number of €200 million for that purpose. And I think we're going to be going, not necessarily only in early, but a lot of that is going to go into early; and I think also the affordability for early is going to be more given than for late at this point in time.

In terms of therapeutic areas, we would naturally gravitate towards the areas that we're in: oncology, I would say, first; and then cardiovascular, there are some interesting things potentially there. In terms of regional infrastructure, and our lack of US footprint, that doesn't really apply to all of our businesses. So if you take actually our specialty businesses, we are seeing over time, I think, some interesting development in our US footprint. So if you look at our Oncology business, it is very strong in principle, and also meant to be strong in the future coming out of the US. So I don't think that is an impediment.

And the same if you look at some of our other specialty business, like Haematology, for example, we don't have a disadvantage in the US. US is more, we're more at a disadvantage where it comes to more primary-care-type businesses, and I would not necessarily see that we're going to be putting a focus on that when it comes to external opportunities.

Wolfgang Nickl

On funding there is actually three sources of funding for the external – amongst other things for the external innovation. Number one, we called it contribution, €2.6 million. So you'll see now on one of the charts for 2022 that we intend to reinvest €0.5 billion per year in the business. And can't tell you exactly whether that will be CapEx or other spend.

Secondly, you have notice in the CapEx number there's a sliver[?] on the top which is pretty significant, which is immaterial investments, those are investments that we would do in Loxo-like licensing deals, and we have put a provision in our CapEx budget there. Thirdly on the M&A line, so how you spent the free cash flow we've put a couple of hundred million for Leaps kind of

investments, and the smaller bolt-on acquisitions. And that's the fun part of the business. We hate to spend. We love to invest when the right thing comes across, then we're just going to look at our overall capital allocation, and we'll make sure that we fund it if there is a good probability that we can out-earn our cost of capital. So I think we have the resources.

Oliver Maier

I think we're going to close for the end of the Q&A. Obviously Management is still available. We would have time for about one or two more questions max. Anybody over there?

Tim Keevil, Fukoku Life International

A couple of questions, first on the thorium platform. Talking about prostate, but how many more indications do you think this could be applicable to? And when can we expect first commercial roll-out and second, just a few comments on glyphosate litigation in the US; and current situation on what you see going forward.

Joerg Moeller

I start with thorium. As I explained in the presentation, this is driven by the ability to conjugate thorium with different antibodies. And it's basically the choice of antibodies that you're conjugating to the thorium that drive which tumour you can be addressing. In the forefront of our activities right now are CD22-expressing tumours that we would use to target Non-Hodgekins-Lymphoma. We are also approaching the clinic with a prostate-specific membrane antigen. We are in preclinical development with the HER2-directed antibody. And it is basically the choice of antibody that drives which tumour you are addressing here.

Now, we are in the early stages of clinical development, and we expect to see within the next one-to-two years the capabilities of this platform. It is too early to now give you any launch timelines, but suffice it to say that within the next one-to-two years we see how far this platform carries; but we are quite optimistic on what we see so far, and that gives raise to some, I guess, validated optimism at this stage.

Werner Baumann

On Glyphosate, in the interests of time, and so that we can squeeze in that one additional question that you mentioned, Oliver. I'll give you the executive summary of what I said earlier. It's a great product, it's safe, it's efficacious, it's urgently needed by farmers around the world. It's non-carcinogenic, we have a strong base to defend the product, we are very well prepared for the next cases that are coming, the first ones they are going to starting in February and March. We have three in quarter 3, in quarter 2, and then another half, let's say, a handful in the second half of the year. And to update you in a more comprehensive way at the beginning of the year, but we are very, very prepared, and very optimistic, and stand firmly behind the product.

Jo Lockey, Morgan Stanley

Jo Lockey, Morgan Stanley. Just one quick question on Pharma. Vilaprisan, the safety issues: can you expand on what they were? And forgive me if I misheard, but I think you said it was a preclinical issue. If that's the case, why wasn't it identified years ago?

Jörg Möller

So we came across literally two weeks ago a safety finding in a long-term safety toxicology study in rodents and it was an unexpected finding, something we haven't seen before, including our

previous preclinical toxicology studies that lasted up to 12 months. Now we have covered a time period beyond 12 months, up to two years, and we saw some unexpected findings that we also did not see in the clinical setting in any of the clinical trials we did so far.

In the clinical trials we haven't reached that duration of exposure, so we are fully covered by the toxicology findings that we had before. But as a precautionary measure as we analysed these findings we have decided to pause enrolment into our ongoing clinical programmes for the time being, to evaluate the signals.

Oliver Maier

Great. So I think we're going to finish with the Q&A here.

Thank you, guys. See you guys for the workshops.

Cautionary Statements Regarding Forward-Looking Information

This presentation contains forward-looking statements. A forward-looking statement is any statement that does not relate to historical facts and events, but rather reflects Bayer's current beliefs, expectations and assumptions regarding the future. This applies, in particular, to statements in this presentation on revenue growth, including product introductions and peak sales potential, synergies, especially in relation to the acquisition and integration of Monsanto Company, portfolio adjustments, cost reduction, financial targets and earnings, cash flow generation, deleveraging and other similar statements relating to future performance, including with respect to the markets in which Bayer is active.

Although the forward-looking statements contained in this presentation are based upon what Bayer's management believes are reasonable assumptions, they necessarily involve known and unknown risks and uncertainties that could cause actual results and future events to differ materially from those anticipated in such statements. Forward-looking statements are not guarantees of future performance and undue reliance should not be placed on them. Bayer undertakes no obligation to update forward-looking statements if circumstances or management's estimates or opinions should change except as required by applicable securities laws.

For more information on factors that could cause actual results and future events to differ from those anticipated in forward looking statements, please refer to the factors discussed in Bayer's public reports which are available on the Bayer website at https://www.investor.bayer.com/en/reports/annual-reports/overview/, including in the Annual Report 2017 under the caption "Report on Future Perspectives and on Opportunities and Risks".