

150 years



## BASF Investor Day - 2015



**Transcript Keynote speech**  
Ludwigshafen  
**September 28, 2015**

## Cautionary note regarding forward-looking statements

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## 'We create chemistry for a sustainable future' entering the 5<sup>th</sup> year

150 years



### What did we say in 2011?

#### **The chemical market will continue to grow at about 5% p.a. fueled by**

- a growing middle class in emerging markets
- demand for innovations for higher living standards and more sustainable solutions

#### **BASF wants to continue to grow above market focusing on**

- adding value as One Company
- expansion of product portfolio downstream towards functionalized materials & solutions
- higher capex particularly in emerging markets
- increased investment in R&D

#### **BASF is committed to delivering long-term shareholder value by**

- growing EBITDA faster than sales
- earning a substantial EBIT after cost of capital
- steadily increasing its dividend

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**Kurt Bock:** Good morning also from my side! I really appreciate that you made the effort to come to Ludwigshafen for two very intense days of Investor Relations at BASF. We will make sure that this will not just be intense, but also interesting and in a certain way delightful, hopefully. We will also try to make sure that it will not be too long two days.

This is our anniversary year – 150 years. I can assure you, we will not talk about our history. We will briefly give you a review how we have performed over the last couple of years. But essentially, we will turn into the future and talk about what we plan to do, including innovation. Innovation will be a very, very important part of our two days here in Ludwigshafen.

You probably noticed, this is a relatively new building; you can still smell the paint. So you might say, okay, now I understand where the capital goes. You can rest assured: This is the first office building in Ludwigshafen after 28 years. We tore down a couple of buildings from the 19th century and we simply had to provide new places for our workforce here and this is a very, very modern building. But from time to time you need to do something like that. It is nothing we like to do. But sometimes it is unavoidable.

Hans and I will guide you through this morning session. We have many slides. What we try to do is to focus on those topics which are relatively new or really new to you. There are a couple of slides which those of you who follow BASF very closely might know, but this is part of the story and we'd like to explain where we are coming from.

Let me start by talking about what we said back in 2011. That was a year when we came forward with what we call our “We create chemistry” strategy. We had a couple of, from our point of view, important messages. One was about the chemical environment, our markets. We essentially said: The chemical market grows at about 5 percent. Actually back then we said it is 4 percent, but due to a re-basing effect of China the number is now 5 percent. You know all these factors which drive global growth, the megatrends. I am not going into that in more detail.

We also said: We want to continue to grow above market as we had done in the past. We want to do this as One Company in a very integrated way. This is not just about the famous Verbund. We also want to deliver shareholder value by growing essentially EBITDA faster than sales. We gave specific targets for 2015 and 2020, against the background of very, very good years – 2011, 2010 – for the chemical industry.

We also said that we want to continue to pay a substantial dividend, something Maggie Moll already alluded to when she said that already in our founding year 1865 we paid a dividend.

## 'We create chemistry for a sustainable future' entering the 5<sup>th</sup> year

150 years



### What did we not mention in 2011?

#### U.S. shale gas

was seen as an opportunity, but not as an industry game changer.

#### Coal in China

We did not foresee the government's move to incentivize coal over gas for chemical production.

#### Oil & Gas

We were conspicuously silent about Oil & Gas – maintain its share of Group sales, earnings and capex.

#### Portfolio pruning

Acquisitions were a strategic lever for growth – we focused on portfolio pruning and smaller acquisitions.

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## What do we want to achieve today and tomorrow?

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- Enable you to deep dive into our business portfolio and introduce our business leaders to you
- Demonstrate how we drive value
- Highlight our approach to innovation and showcase specific examples
- Provide a medium-term outlook

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What is interesting is what we did not say specifically back in 2011 – and these are important points. We did talk briefly about shale gas, but frankly, back then we did not foresee that shale gas would really become a game changer for our industry in North America. The investment stream which we have seen since then is far beyond what we had imagined four, five years ago.

We also got a left-hand curveball from China in terms of coal versus natural gas. You know that just two years ago the government decided to make natural gas much more expensive to incentivise coal as the most important feedstock for the chemical industry in China. This is obviously a challenge for many chemical companies and we also have to think very hard how we can improve our raw material base in China.

We were also, back in 2011, relatively quiet on Oil & Gas. Actually, we focused almost entirely with our strategy on chemicals; We Create Chemistry for a Sustainable Future. We side-lined Oil & Gas. That was not because we didn't want to talk about it, but essentially because the strategy for Oil & Gas was well developed and if you try to encapsulate it, it essentially means: keep it at about 25 percent of sales earnings and capex, which we have done over the last couple of years.

And we were relatively quiet on M&A. The strategy which we highlighted back then was very much about organic growth, capex-driven. We said there might be some M&A going on, but we did not really foresee the full extent of restructuring which has become necessary in some of our businesses over the last couple of years.

So, what would we like to achieve here today with you in Ludwigshafen? First of all, we would like to provide you with a deep dive into our business portfolio and essentially to introduce you to our entire management team, not just the management board, but also the division heads whom you will meet today and tomorrow.

We will demonstrate how we drive value. We will specifically talk about innovation also as part of our anniversary year where we have paid utmost attention to really drive innovation as a key value driver for BASF. And you will get a medium-term outlook.



## Fundamental trends intact; environment for chemical industry more challenging

150 years



CAGR 2010 - 2015	2011 view	today's view
<b>Global GDP</b>	<b>3.4%</b>	<b>2.6%</b>
<b>Industrial production</b>	<b>4.6%</b>	<b>3.2%</b>
<b>Chemical production (excl. pharma)</b>	<b>4.9%</b>	<b>3.9%</b>
▶ thereof growth contribution of emerging markets	<b>82%</b>	<b>91%</b>

### Market dynamics have changed since 2011

- Low growth in Europe, Japan and the U.S.
- Strong growth stimulus in China with spillover effects to other emerging markets
- Lower feedstock costs
- Proliferation of some technologies resulted in increased competition
- Faster build-up of significant new capacities in China resulted in overcapacities
- Faster than expected commoditization in selected product lines

Let me start with a short review of the chemical industry's landscape. What do we see today compared, in this case, to 2011? Obviously, the world economy has grown a little bit slower than what we had expected. We all know this. However, what is important, the chemical industry continues to grow faster than the global world economy, essentially because the emerging markets have grown faster and will continue to grow faster than the rest of the world.

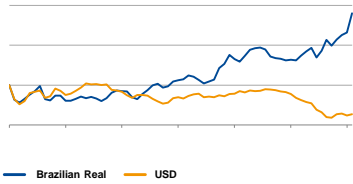
You can also see here that the share of growth coming from the emerging markets is slightly higher than what we had foreseen a couple of years ago, essentially because the mature economies, above all Europe, have grown very, very slowly over the last four to five years. What we are saying here is essentially that the growth or the level which we had expected in terms of chemical production in 2015 will only be achieved in 2017. It is still growing nicely, but slightly slower.

# Lower predictability and higher volatility in the economic environment

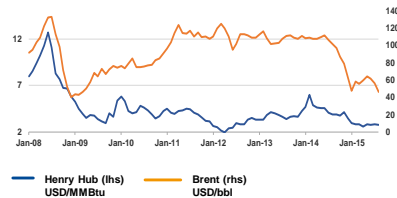
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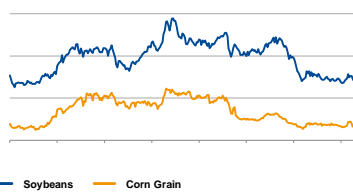
Exchange rates reflect geopolitical situations (index 2010 = 100)



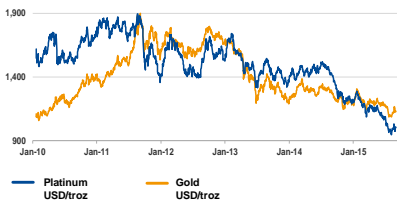
Highly volatile oil and natural gas prices



Soft commodity prices at peak and trough (index 2007 = 100)



Precious metal prices



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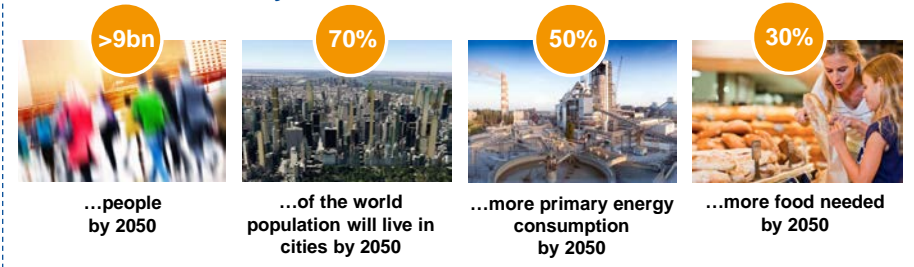
# Chemicals remains a growth industry

150 years



Agriculture    Health & nutrition    Energy & resources    Construction & housing    Consumer goods    Transportation    Electrical & Electronics

## Chemistry as enabler for current and future needs



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What we also have seen over the last couple of years is obviously, especially during the last 12 to 24 months, increased volatility in many of our markets. Here you see just a couple of indicators. I know that you follow all of them very, very closely. But obviously, this makes it much more difficult in our industry to predict the future and I think it is almost ludicrous to assume that there could be a straight-line development going into the future. Some of these developments have taken us by real surprise. I am not sure if anybody in this room really had forecasted back in early 2014 that the oil price would drop to below 50 dollars, which has happened since then. This is just one factor which we have to take into account.

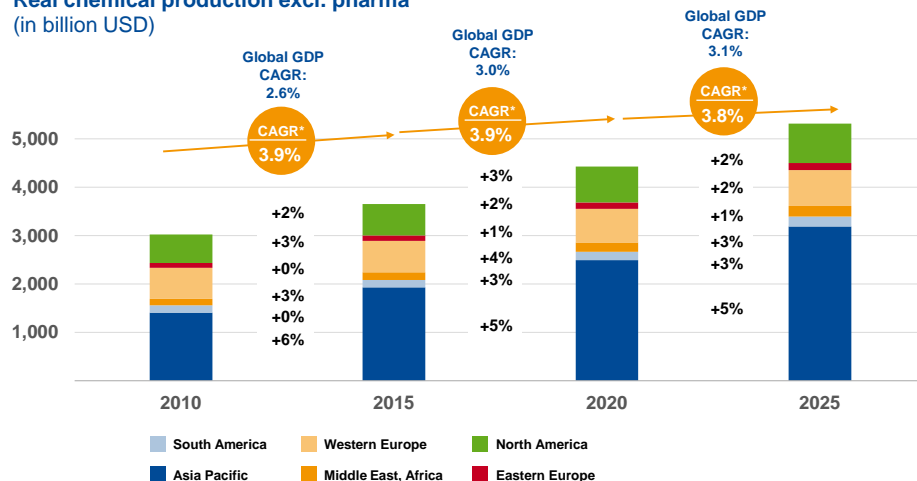
So, increased volatility, yet the long-term trends, from our point of view, are intact and they work for our industry. This is important. You might say, yes, we know this. But still it is important to keep this in mind. Looking around the globe in terms of demographic developments, standard of living, technology, there is a huge demand for more and better chemistry – not just doing the same we have done in the past, but also providing new solutions for the demands of a growing world population.

# Emerging markets driving chemical production growth above global GDP

150 years



Real chemical production excl. pharma (in billion USD)



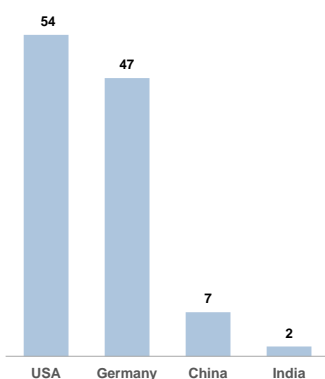
BASF Investor Day 2015 – Keynote Speech \* Real chemical production excluding pharmaceuticals

# China and India still have a huge economic catch-up potential

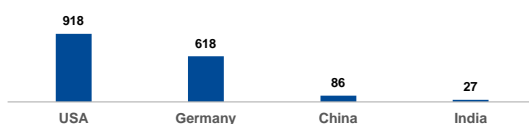
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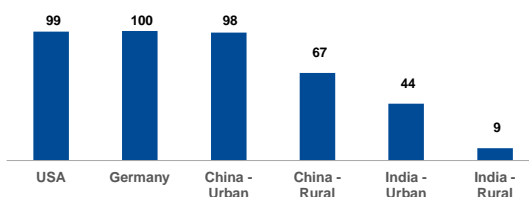
GDP per capita, 2014 (in USD thousands)



Passenger cars, 2014 (per 1,000 driving population)



Refrigerator ownership, 2013\* (percent of households)



BASF Investor Day 2015 – Keynote Speech \* Or latest available Source: National Statistical Offices, ACEA, BASF

We have tried to be a bit more precise here. On this slide you see depicted the growth rates going forward, 2020 and 2025 by region – chemical production growth. You can clearly see, the emerging markets will continue to grow slightly lower than what we had seen in the past, but also we do not foresee that the mature economies will really see a major pick-up in growth. They will continue to grow at about 1 to 2 percent, which is still growth, but it is certainly a different challenge to be competitive in such an environment than to compete in a high-growth emerging market.

What is also clear is that the share of emerging markets will continue to grow. Already today it is about 60 percent; it will go up to something like 65 percent in 2020 and almost 70 percent in 2025. So it is quite clear where the growth potential comes from.


There are a couple of doubts at this point in time, especially with regard to emerging markets, when you look at the current environment. I am sure you will ask about this later on. But, again, today we try to provide you with a long-term perspective, not just talking about annual volatility or even quarterly volatility. The long-term trend for emerging markets, I think, is a good and positive one.

On this slide you just see a couple of indicators about essentially standard of living in mature, developed countries, compared in this case to China and India. It is obvious that most probably the emerging countries will not achieve the level of mature countries, but if they only improve a bit, this still translates into quite some growth going forward.

As part of our anniversary exercise this year, we have especially for emerging markets tried to identify these growth opportunities also by having very new, very innovative ways of interacting with the science community, with the public sector, but also with NGOs to really identify what is the next growth engine e.g. in India and how can we cope with some of those challenges?

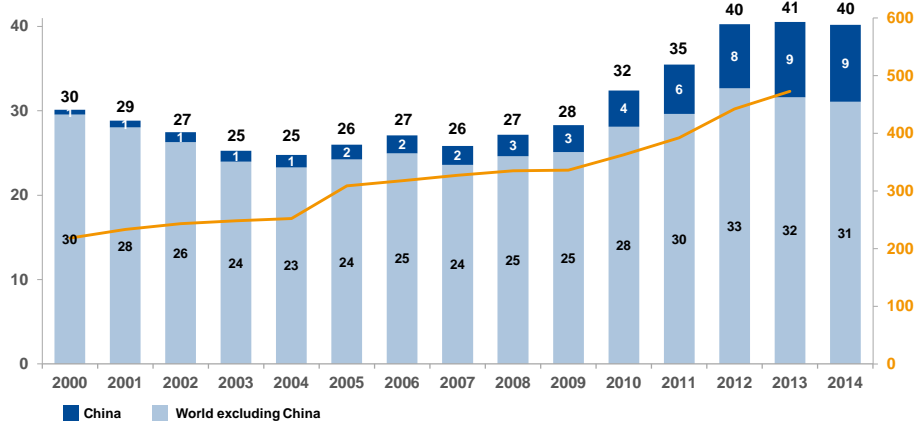
Coping with those challenges at the end of the day means you have to provide better chemistry. Providing better chemistry is all about innovation at the end of the day. So innovation is really at the core of our competitiveness and the competitiveness of the entire industry.

# R&D efforts in chemicals are increasing, strongly driven by China

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 We create chemistry


R&D spending\* in chemicals excl. pharma  
 (in billion €)

Number of chemical patents  
 (in 1,000)

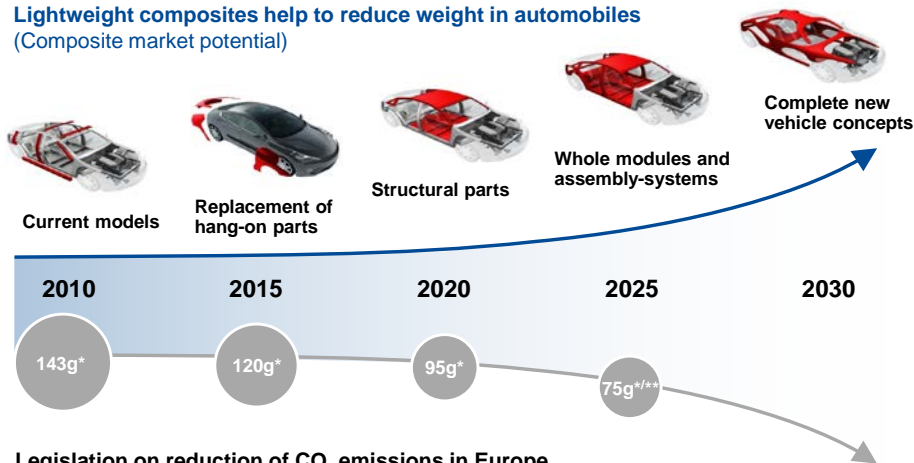


BASF Investor Day 2015 – Keynote Speech \* R&D spending of chemical companies within the respective countries (regardless of nationality) Source: Feri Chemdata International 12

# Innovations continue to drive growth

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Lightweight composites help to reduce weight in automobiles  
 (Composite market potential)



Legislation on reduction of CO<sub>2</sub> emissions in Europe  
 (Other countries such as Japan, South Korea, USA, China pursue similar trends)

BASF Investor Day 2015 – Keynote Speech \* CO<sub>2</sub> per km; \*\* Under discussion 13

When you look at this chart, you can see that the spending for R&D has gone up quite dramatically and not surprisingly also in China, which is working very hard to get its seat at the table, so-to-say. You can also see this when you look at the number of patents being registered. China has become extremely aggressive in that sense. You can always talk about quality versus quantity, but what we clearly see, even in emerging markets today: innovation becomes key for the future of our industry. This translates, obviously, also into our strategy, meaning we have to have a stronger foothold in these markets with our R&D centres and we have to make sure that we constantly improve our rate of innovation.

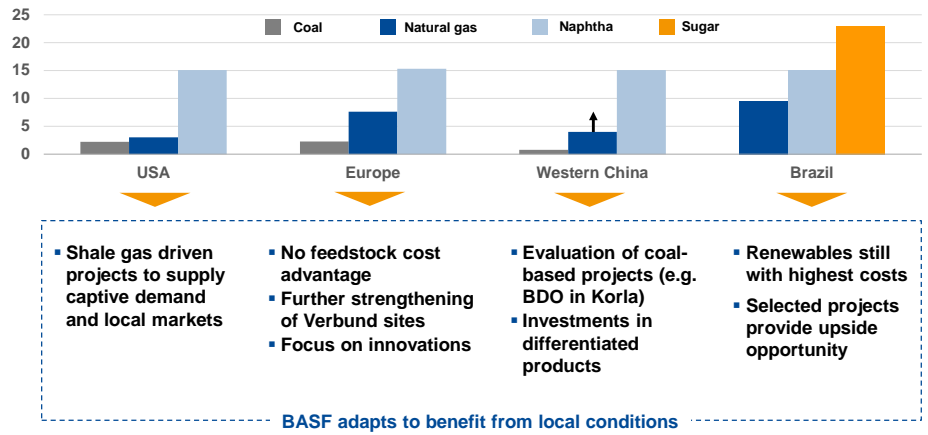
You will learn more today and tomorrow about this innovation culture within BASF. Here you can see just one example – more details to follow – how the chemical industry is adapting to changing needs in society. This is about car manufacturing, obviously, how this develops from just a few kilograms per car into now 20 to 25 percent of the material of a car being light-weight materials, because we can now enter structural parts of the cars as well. This will continue. This is a huge challenge for the entire industry. But from our point of view, it is a big, big opportunity.

So, innovation is important and will remain important; it will become even more core of our activities.

# Raw material specifics drive regional value chains

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5-year average 2010-2014  
 (heating value in €/Gigajoule)



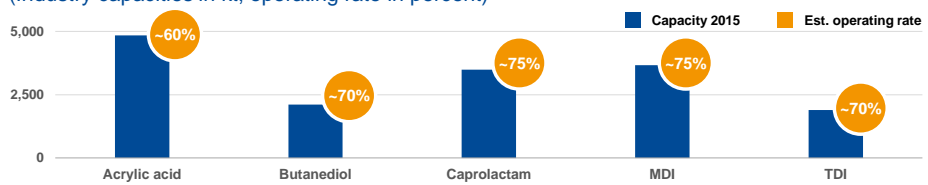
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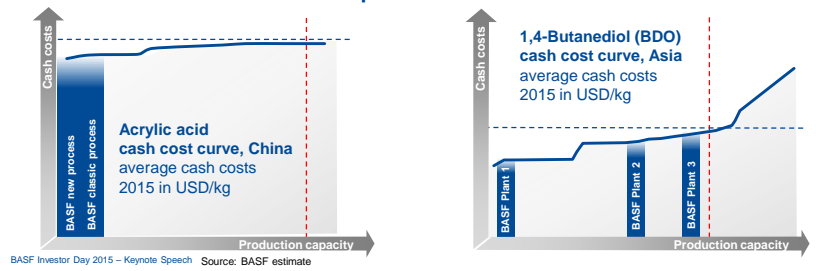
# Overcapacities in Asia will be absorbed over time

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Overcapacities in Asia will persist for some years  
 (Industry capacities in kt, operating rate in percent)



## BASF benefits from attractive cost positions



BASF Investor Day 2015 – Keynote Speech Source: BASF estimate

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When talking about curveballs, it is certainly useful to talk about raw materials, because what we have seen in raw materials is a changing landscape over the last couple of years. I already talked about the shale gas development in North America. What we have done here in this slide is that we have tried to talk about the cost of raw materials by essentially talking about heating value in euro per gigajoule. What you can clearly see that obviously in North America shale gas today is very, very competitive. Please keep in mind: These are average numbers, 2010 to 2014. Back then, the oil price had an average of 102 dollars per barrel. Today, when you look at the light blue naphtha bar, you have to take half of that 50 percent and then you have the real relation with current prices.

In Europe, obviously, we have a slight disadvantage in terms of natural gas. We have known this for many, many years, although this environment is changing as well. We will be talking about our Oil & Gas business today and tomorrow, but also about what it means for the natural gas market in Europe.

In China I mentioned coal. Coal is extremely competitive in China costwise. It certainly has some challenges in terms of sustainability, CO<sub>2</sub> emissions and water consumptions. Finally, just as an illustration, everybody talks about bio, also in our industry, which today across the entire chemical industry accounts for something like 7, 8 percent of raw material usage, yet even in Brazil. Even in Brazil bio mass is not really competitive, costwise. You have to keep that in mind as well. So it is a niche application; it will remain a niche application. Some areas where BASF is also doing quite some research and quite some investment with good progress, but we have to be very much aware that our industry will remain a fossil-based industry for many decades to come.

Having talked about innovation and raw materials, let us turn to production. Here you see the situation in Asia. For different products, when you look at the percentage numbers, these are current utilization rates we are seeing in Asia for major products where BASF also has a position. Clearly, these numbers are not where they are supposed to be. That is obvious. One reason for that is obviously also that there has been much more investment in Asia than most people had expected. BASF has followed what I would describe as a very prudent strategy. We have invested in some of those businesses. For instance, in caprolactam we have not invested for the last 40 years, to make this very clear. Yet, we are a competitor there. And we have invested in technologies and businesses where we perceive a competitive advantage in terms of either or access to raw materials and or technologies. There are two examples here. The industry cost curves which are important to really understand competitiveness in upstream commodity businesses. We think that we have first-class technology available. Yet, it will take a couple of years to absorb these additional capacities in Asia and this is certainly weighting on our profitability in that part of the world. Globally, utilization rates for these businesses are at about 5 to 10 percent higher.

The sweet spot, frankly, in terms of where you can really make money and profitability kicks in is probably at about 85 to 90 percent for most of those products, which we have seen in the past, which we will again see in the future.

## Political environment more challenging, but with opportunities for innovation

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### Climate change / Greenhouse gas reduction

- G7 call for “Decarbonization” by 2100
- Europe: Ambitious reduction of 40% by 2030 (base 1990)
- USA: Reduction target of 26-28% by 2025 (base 2005)
- China: Announced to stop emissions increase as of 2030
- Emissions trading introduced in South Korea, rollout in China planned for 2016

### Chemical industry regulations

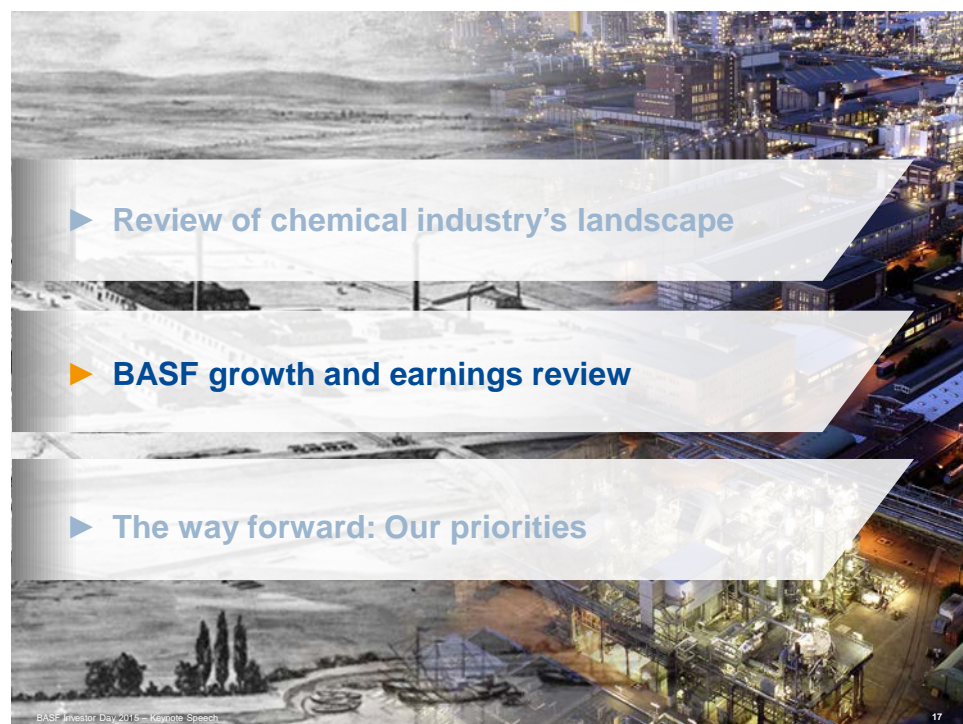
- EU: Focus on precautionary principle; regulatory topics such as Endocrine Disruptors
- South Korea and China: Similar regulatory structure as REACH
- USA: Toxic Substances Control Act (TSCA) reform in progress, implementation expected by 2016

### Trade

- Upside through bilateral agreements, but...
  - increasingly negative environment (in Europe) regarding TTIP\*
  - in the USA, TPP\*\* faces stronger criticism than TTIP

BASF Investor Day 2015 – Keynote Speech \* TTIP: Transatlantic Trade and Investment Partnership; \*\* TPP: Trans-Pacific Partnership

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We are, to make it very clear, a heavily regulated industry. We have to comply with many rules and regulations around the globe. These rules and regulations become stricter as we speak. This certainly is an opportunity in a certain way – to provide better technology – but it is also a challenge because you have to make sure that you stay at top of the game wherever you operate.

On this slide you see a couple of challenges we are seeing right now. We will go into the consequences later on when we talk about the strategic development of the company. The G7 at their meeting in Germany recently called for the decarbonization of the world economy. I am not really sure how you are going to make this because it means you also have to stop breathing because we all are emitting CO<sub>2</sub>. I am pretty sure the politicians have no clue how to do it and they are only talking about 2100, so a couple of years' time. But yet, when you think about this, this is unrealistic; yet it sets expectations. It sets expectations in the political and regulatory environment we have to cope with.

We are heading towards the COP21 meeting in Paris in December. You already see now the countries lining up in terms of emission standards. President Xi on his visit to the United States talked about introducing now a nation-wide system in China as well, cap and trade as of 2017. It is supposed to be operational in 2020. We don't know yet the details. We have to assume that the chemical industry will be affected as well. That is, from our point of view, not necessarily bad because it would create or would help to create a level playing field around the globe because right now in Europe we have a system which is not really helping our competitiveness. If other countries also step up to the plate and provide similar tools, it would be helpful from our point of view. We have to make sure that then the details of the system really work and effectively drive emission reductions.

Chemical industry regulation is a hot topic in our industry. In Europe we have REACH; you know about this. In the United States we talk about the TSCA reform which, from our point of view, is a very sensible and intelligent way to further develop a set of rules which was established more than 30 years ago – please keep that in mind. So, in a certain way we need this new regulation in the United States. But also the emerging countries are now making big strides to perform at a higher level of regulation, from our point of view again an opportunity because we perceive BASF as being a leader in terms of sustainability and complying with rules and regulations.

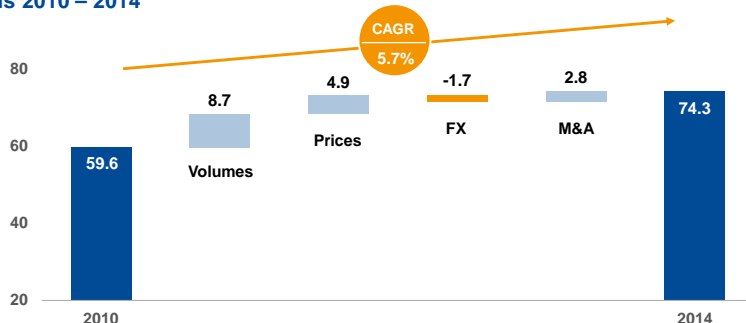
There is one upside which is hard to read at this point in time, which is really trade. Everybody talks about e.g. TTIP. In Germany, there is quite some opposition to that topic. We sincerely hope that we will get TTIP because it is really good for the industry, not just in terms of reducing tariffs and certain economic opportunities, which at the end of the day we have to pass on to our customers anyway, but more in terms of harmonizing regulation, avoiding double testing etc. So there are additional opportunities where we are working very hard as an industry also to get a better regulatory environment for our industry.

With this, I would like to finish my little review of the overall development of our environment. I would now like to hand over to Hans who will guide you through a performance review and then we talk about the strategy going forward. – Thank you.

# Components of growth

150 years

Sales\* analysis 2010 – 2014  
 (in billion €)

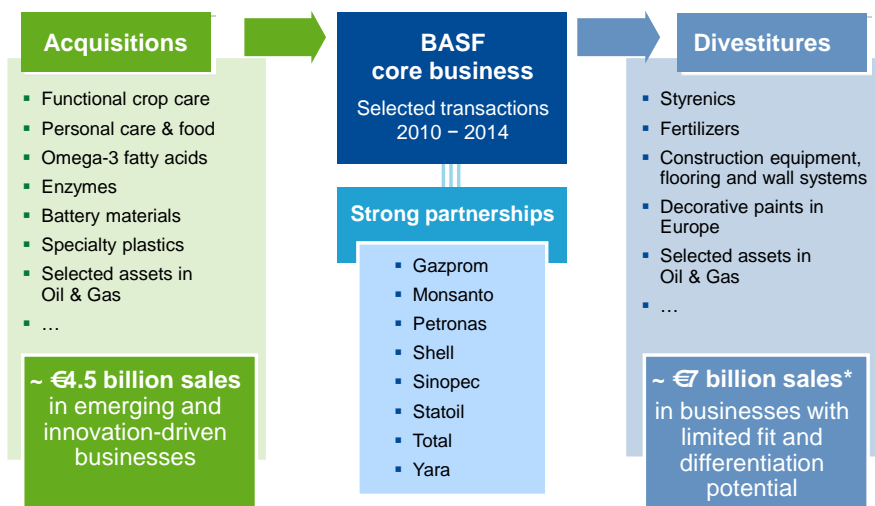


	Net sales 2010	Volumes	Prices	FX	M&A	Sales CAGR 2010 - 2014
BASF Group w/o Oil & Gas	51.4	+3.2 (+1.5% CAGR)	+3.9	-1.6	+2.2	+3.6%
Oil & Gas	8.2	+5.5 (+13.7% CAGR)	+1.0	-0.1	+0.6	+15.7%

BASF Investor Day 2015 – Keynote Speech \* 2010, 2011 indicative, adjusted by IFRS 10 & 11

# Portfolio development towards more market-driven and innovative businesses

150 years



BASF Investor Day 2015 – Keynote Speech \* Includes sales of non-consolidated businesses (Styrenics, VNG participation)

**Hans-Ulrich Engel:** Thank you Kurt. – Good morning, ladies and gentlemen, also from my side! We heard about regulation and trade on the last slide that Kurt showed. I will take you on a little journey to growth and earnings review. I start with the last five years and what we have seen in sales growth. You see our sales growing from roughly 60 to 74 billion. I have also shown on this slide the components. You see volume growth for the BASF Group in the order of magnitude of 3.5 percent per annum. You see price increases contributing to growth in the order of magnitude of 2 percent per annum. Foreign exchange – and that is obviously heavenly driven by the developments that we saw towards the end of last year – accounted overall for a negative with 1.7 billion euros, equating to roundabout 1 percent negative contribution. Then we have a relatively small contribution that is coming from M&A. So, in other words, structural changes that we have in the portfolio, is only 1.1 percent. If you compare that to what we had in the prior five-year period of time, it is significantly lower and I will show it to you in a second.

I have also given to you how the BASF Group has developed without our Oil & Gas segment. I have given you on the bottom of the slide the development for the Oil & Gas segment only. You see there, in particular, strong sales growth in our Oil & Gas segment. That is primarily driven – the 15.7 percent that you see there – by our natural gas trading business that has generated significantly higher sales over the years.

I already alluded to what happened on the M&A side over the last five years. This is shown on this slide. You see us acquiring sales in the order of magnitude of 4.5 billion euros, at the same point in time divesting roughly 7 billion euros in sales. Those of you who remember the prior slide may immediately ask the question: How come that you have a positive structural effect of plus 1.1 percent when what you are showing us here is actually minus 2.5 billion euros coming from acquisitions and divestitures? The answer to that is: In the divestitures we also show the sales of non-consolidated activity such as e.g. the divestiture of our 50 percent participation in the Styrolution joint venture. If you take these out, the non-consolidated activities, we roughly divested 3.4 billion euros in sales, roundabout 50 percent of what you are seeing on the slide.

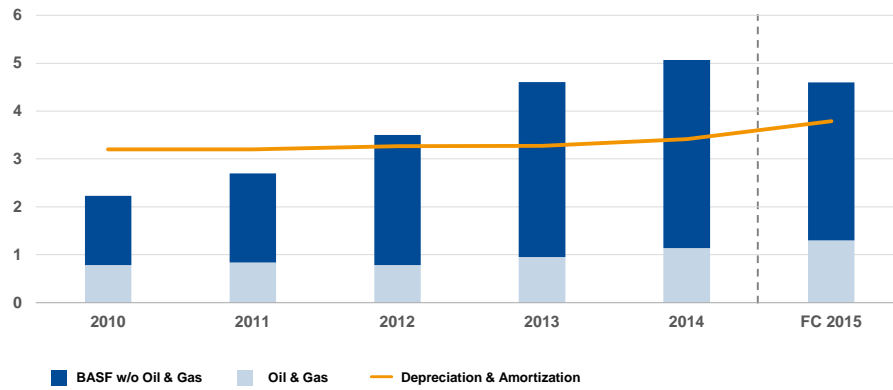
You see that we didn't sit on our hands. We kept improving the portfolio. We divested activities with what I would call a lower strategic fit, activities that overall didn't show the differentiation potential that we would like to see in our businesses. We kept investing in innovation-driven businesses close to the customer, preferably in emerging activities such as e.g. functional crop care, the Omega-3 activities, enzyme and also battery materials. You have seen that we also acquired selected activities in Oil & Gas and that is predominantly the two transactions that we did with Statoil, one in 2013 and one in 2014.

## Capital expenditures peaked in 2014, reduction in coming years planned

150 years



**Investments\* 2010 – FC 2015**  
(in billion €)



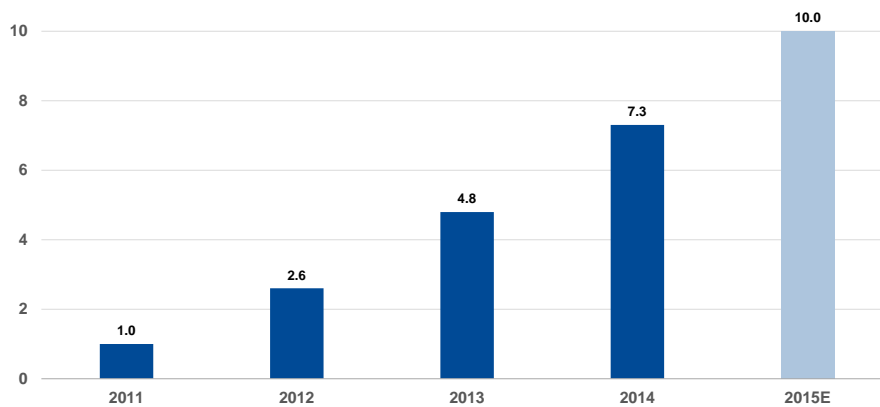
BASF Investor Day 2015 – Keynote Speech \* Investments in fixed assets, according to financial reporting (excl. non-consolidated, JV, financial assets), excluding additions to property, plant and equipment resulting from acquisitions, capitalized exploration, restoration obligation and IT investments 20

## Innovations drive sales

150 years



**Sales from innovations\***  
(in billion €)



BASF Investor Day 2015 – Keynote Speech \* Launched since 2011 21


The strong driver for our growth that we have experienced over the last five years is actually organic growth. Organic growth contributes roughly 60 percent to the growth that you have seen. That obviously comes with a requirement to feed that growth and support that growth. This is depicted on this slide, which gives you our capital expenditure over this five-year time period where in the beginning 2010 and 2011 we kept spending at a level below depreciation. That then changes in 2012. As we had announced it, we started spending above depreciation, peaking this capex programme that we announced back in 2011 in the year 2014 with roughly 5.4 billion euros that we invested in 2014, many of the big projects that you are familiar with either started up in 2014 or in 2015: the acrylics complex, as an example, in Nanjing that we started up last year, this year we had the start-up in August of the MDI complex in China. We have the TDI complex starting up here in Ludwigshafen. We have the acrylics complex in Brazil starting up.

When you look at it from an overall perspective in what I would call our growth capital, I see three components there. Number one is capex, number two is acquisitions and number three is our money that we are spending on research and development, research and development over the years roughly 3 percent of sales of the BASF Group without Oil & Gas. Why without Oil & Gas? Because typically there is not a lot of R&D funding required in the Oil & Gas business. So it is roughly 3 percent on BASF Group sales without Oil & Gas that we are spending there.

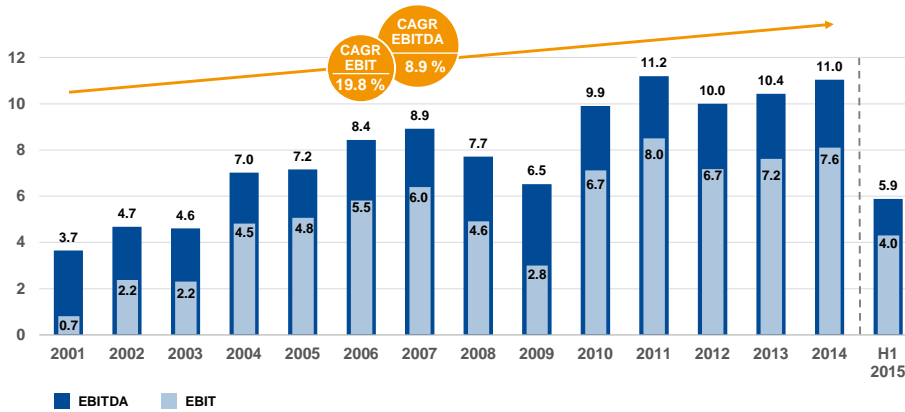
Then we look at the capex and the acquisition. The growth capital that we are allocating there is quite interesting to see. Yes, we stepped up capex significantly. But at the same point in time we reduced our spending on acquisitions. To give you an idea: In the time period 2010 and 2014 we spent below 7 percent combined on acquisitions and capex, exactly 6.7 percent. When you look at the prior five-year time period, 2005 to 2009, we spent above 7 percent, in total 7.1 percent of sales combined on acquisitions and on capex.

I alluded to innovations already. As I said, 3 percent of group sales without Oil & Gas we spend per year. We have clear expectations with respect to the outcome of that. We set also up a target for 2015 to reach 10 billion euros in sales from products and solutions introduced to the market from 2010 on. So over the last five years you see how this is ramping up. Our forecast clearly shows that we will reach 10 billion euros in sales in the year 2015.

# Steady earnings growth


150 years  
  
 We create chemistry

**EBIT and EBITDA\***  
 (in billion €, 2001 - 2014)

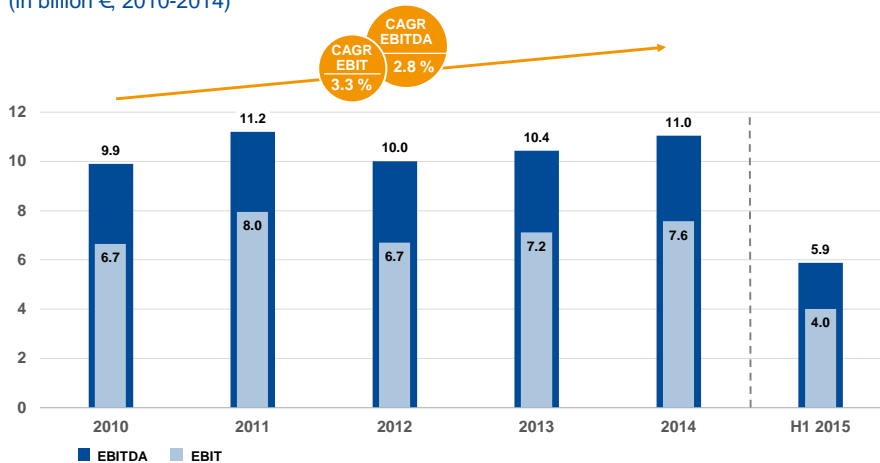


BASF Investor Day 2015 – Keynote Speech \* 2010, 2011 indicative, adjusted by IFRS 10 & 11; 2001 – 2009 as reported, without non-compensable foreign income taxes on oil production 22

# EBITDA peak performance of 2011 again achieved in 2014

150 years  
  
 We create chemistry

**EBIT and EBITDA\***  
 (in billion €, 2010-2014)



BASF Investor Day 2015 – Keynote Speech \* 2010, 2011 indicative, adjusted by IFRS 10 & 11 23

Now let us look at our earnings growth and development there. I have given you the full picture over the last 15 years. You can see the CAGRs on top. When you look at the year 2001, we started out with 700 million euros in EBIT. If you look at the year 2014, we are at 7.6 billion euros in EBIT that we generated last year. I have also provided to you the first half of 2015 where you see us with respect to EBIT being exactly at the level of prior year, despite the significant hit that we get in particular in our Oil & Gas segment resulting from low oil and natural gas prices. In the first half of 2015 we generated an EBITDA which is 200 million euros higher than where we were in the first half of 2014.

EBITDA development overall over the time period 2001 to 2014 from 3.7 to 11 billion euros. Now, when I look at this slide I tend to segment it in three time horizons, the first one 2001 to 2003, where you see us, let's say, in a range of 4 to 5 billion euros in EBITDA, then the time period 2004 through 2009 where we are in this range of 7 to 9 billion euros in EBITDA and then 2010 through 2014 where we are generating 10 to 11 billion euros in EBITDA, so a significant improvement in our earnings power over this period of time.

What I may also want to mention here is that even in the year 2009 we would have earned our cost of capital were it not for roughly 1 billion euros in integration cost that we had as a result of the Ciba acquisition.

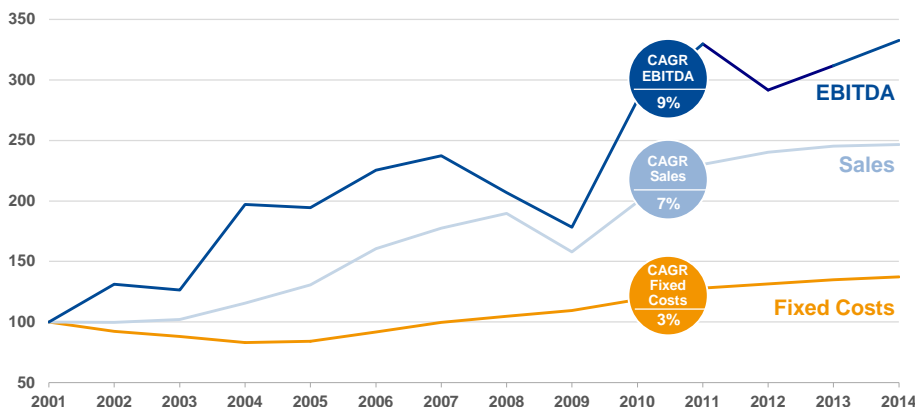
Now a closer look at the years 2010 through 2014, so again: last five years – I mentioned already – 10 to 11 billion euros in EBITDA that we were generating. If you look at that period of time, it is quite interesting. The years 2010 to 2011 clearly stand out. We all remember what happened. We came out of a recession. Demand picked up quickly in that period of time. Margins went up significantly. Why? Because in our industry not all the capacity could be started up as quickly as it would have been needed to address the increase in demand that we have seen after the weak period in 2009. So that was the reason for generating very, very high margins. You see 2012 in this period of time being the year with the lowest earnings. This was then also the time when we started to put restructuring measures in place, in particular in our Performance Products segment, but also with respect to our construction and chemicals division.

## Strong track record in operational excellence

150 years



**BASF Group\* 2001–2014**  
(Index; CAGR 2001–2014)



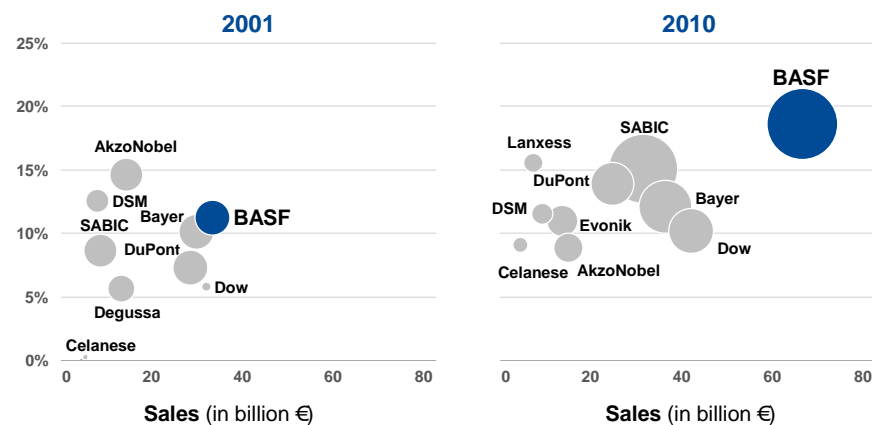
BASF Investor Day 2015 – Keynote Speech \* Excl. companies with major IFRS 10/11 restatements, i.e. BASF YPC Nanjing, Libya onshore, other Oil & Gas and Catalysts companies

## Best-in-class asset profitability – Capital turnover improved by 2% p.a.\*

150 years



**EBITDA on total assets**  
(in %)



BASF Investor Day 2015 – Keynote Speech \* Capital turnover = sales over total assets



Now, this slide I tend to call the “business is actually simple” slide because when you look at it, it shows you the following. It shows you that sales increased at 7 percent per annum over this period of time, fixed cost by only 3 percent. What this does is: It generates nice improvements in your earnings.

Rest assured that our push for operational excellence programmes will continue going forward. In this period of time there are a number of operational excellence programmes. The last two which cover the time period 2008 through 2014 are the programmes NEXT and STEP. You are well aware of the fact that STEP will deliver 1.3 billion euros in EBIT improvement in the year 2015, compared to the starting point 2010, which was the baseline for the STEP programme.

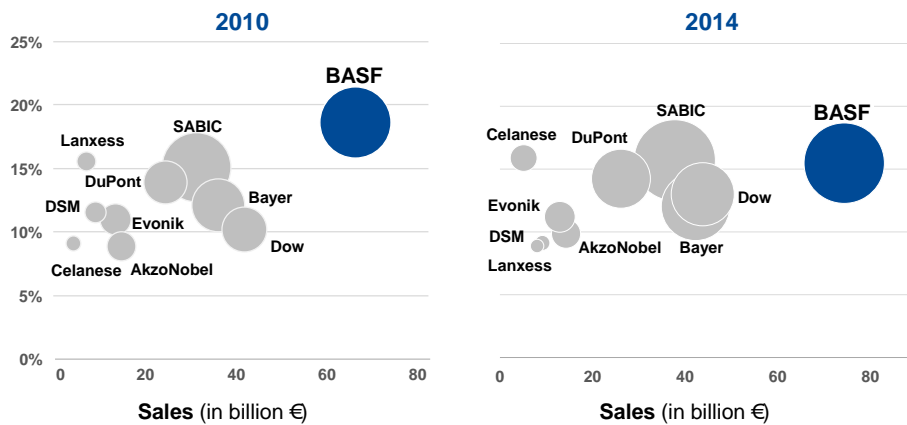
A slide that you may still be familiar with is from our “We Create Chemistry” strategy. It shows two things. It shows first our asset profitability, measured here as EBITDA on total sales. You see the nice development that we experienced there from 2001 to 2010 where we started in 2001 with an EBITDA on total assets of 12.7 percent and a capital turnover rate of 0.9. In the year 2010 we were at 17.4 percent and a capital turnover rate of 1.1.

## Capital turnover slightly down due to margin decline and growth investments

150 years



EBITDA on total assets  
(in %)



BASF Investor Day 2015 – Keynote Speech \* Capital turnover = sales over total assets

● EBIT (amount indicated by size of circle)

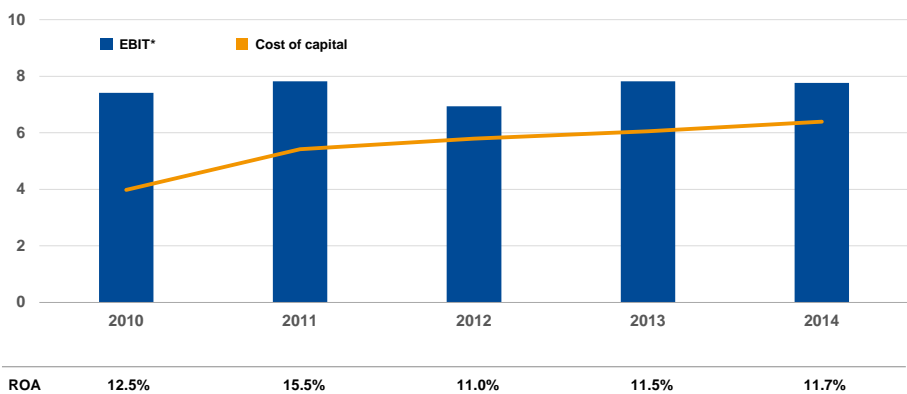
26

## Significant premium despite higher investments

150 years



EBIT\* after cost of capital  
(in billion €)



BASF Investor Day 2015 – Keynote Speech \* EBIT BASF Group without activities not assigned to segments and noncompensable oil taxes

27

Now what has happened over the last five years? BASF keeps its leading position in the chemical industry when it comes to asset profitability. But the asset profitability is slightly weaker in the year 2014 than what we have seen in 2010: 17.4 percent in 2010 compared to 2014 with 15.5 percent. What happened is: We have an increase in our asset base. When I talk about assets, these are total assets. So in the entire balance sheet we have seen an increase from 60 to 71 billion euros in total assets. These are driven by three key factors. Number one is our capex programme. I already mentioned the plants that started up in 2014 and will start up in 2015. Plants not fully loaded obviously have a negative impact on your profitability ratios. But that will change going forward.

We also have an increase in our working capital. That is related to generating 10 billion euros more in sales compared to the year 2010, last but not least due to the strengthening of the dollar towards the end of 2014. Also that pushes up the total assets.

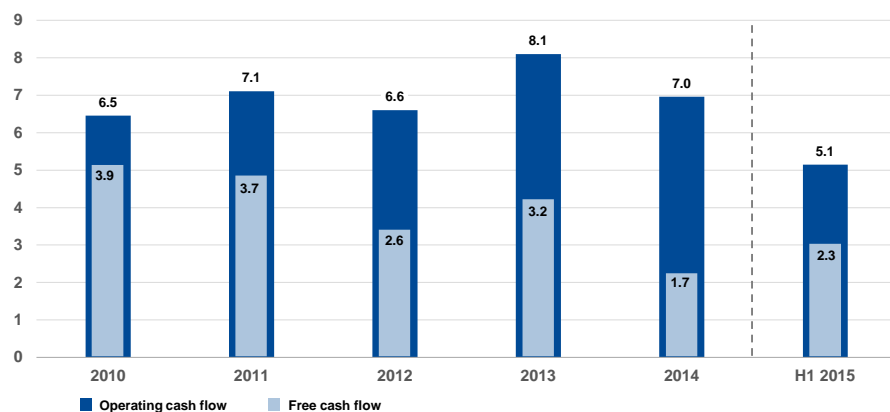
During the entire period of 2010 through 2014 we generated a significant premium on our cost of capital. The cost of capital line is depicted here in yellow. You see how EBIT during all these years clearly is above the cost of capital line.

## Free cash flow to recover after capex peaked

150 years



Cash flow  
(in billion €)



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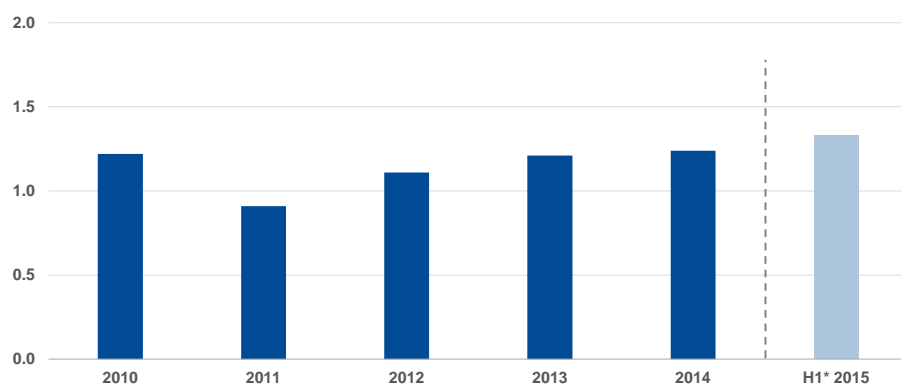
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## BASF maintains solid A ratings with Standard & Poor's and Moody's

150 years



Net debt / EBITDA, as reported



BASF Investor Day 2015 – Keynote Speech \* Last 12 months

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BASF is known as a strong cash flow generator. This is one of our clear targets. You see the cash flow development again over the five-year period of time 2010 through 2014. Overall we generated during that period of time an operating cash flow of 35 billion euros and a total free cash flow of 15 billion euros. I have also given you the development in the first half of 2015, since 2014 was a year where we had, as I explained already, our capex peaking. We also had some not so favourable working capital influences on our cash flow. But you see that we actively address that in the year 2015.

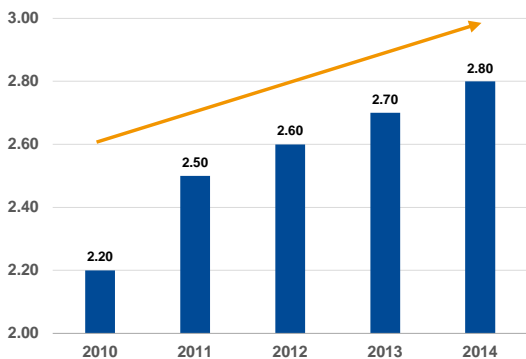
With respect to our financial standing, A+ rating and A1 rating with Standard & Poor's and Moody's, a low leverage ratio as shown on this slide, and operating with roundabout 40 percent equity ratio and a clear target to maintain a solid A rating.

## Delivering consistent, long-term shareholder value

150 years



### Dividend per share (in €)



### Progressive dividend policy

- We want to increase or at least maintain our dividend

### Key facts

- Delivered on progressive dividend policy
- Supported by strong cash flow generation
- ~€12 billion dividends paid since 2010
- Dividend yield above 3% in any given year since 2005

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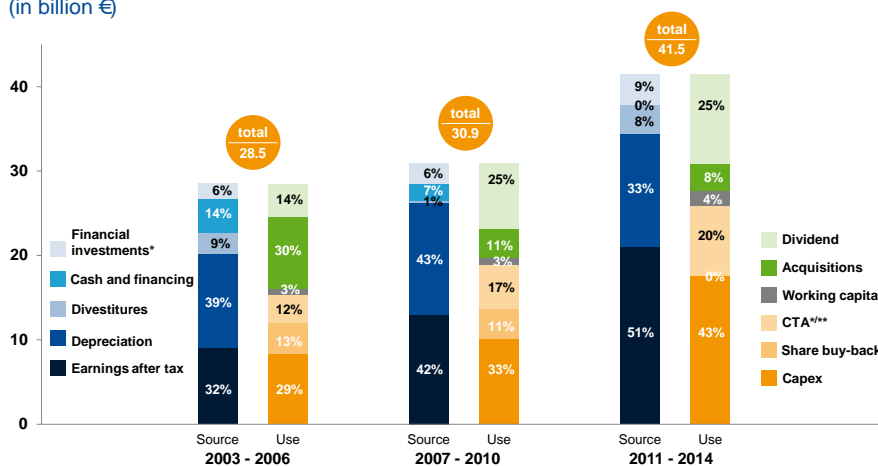
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## Capital allocation: Source and use of funds – 2003-2014

150 years



### Source and use of funds (in billion €)



BASF Investor Day 2015 – Keynote Speech \* And Other; \*\* Contractual Trust Agreement

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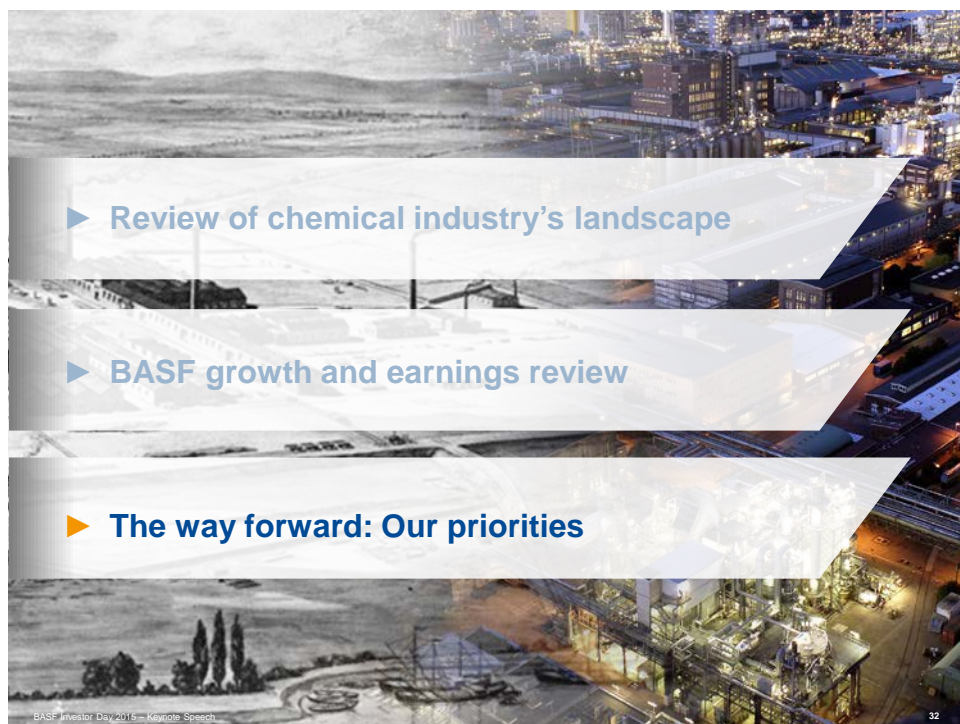
Maggie in her introduction already talked about our dividend policy, total shareholder return. Our dividend policy is actually very easy to remember. We want to increase or at least maintain our dividend. You see the development here again over the five-year period of time. If we think back, even to a longer period of time, we delivered on the promise that we are making here each and every year from 2001 on with one exception and that is the exception of the crisis year 2009, where we had to cut the dividend. Out of the 15 billion euros in free cash flow that we generated 2010 through 2014 we paid in total 12 billion euros in dividends and had a dividend yield in each and every year above 3 percent.

Now my actually last slide that I wanted to show is the source and use of funds and the developments that we have seen there. First of all, the source of funds: When you look at this slide, you see how we have improved our earnings, as I alluded to already in one of the earlier slides, significantly, contributing in 2003 to 2006 time frame 32 percent to our source of funds and then in 2011 through 2014 in total 51 percent to our source of funds.

Let us also take a look at the use of funds. When you look at the use of funds, what you see is that we have capex development in the first time period of 29 percent of total funds and then increasing – I already explained the rationale behind that – to 43 percent of total funds.

At the same point in time – I mentioned that also already – you see – that is depicted in light green – how the growth money that we are allocating to acquisitions has decreased from 30 percent to 8 percent in the 2011 to 2014 timeframe. Last but not least, sort of going back to the prior slide and the dividends that you have seen, we increased dividends from 14 percent of total funds to 25 percent of total funds.

With that, I thank you for your attention and turn it back to you, Kurt.



## Fundamental trends intact; chemical production growing faster than GDP

150 years



CAGR 2015 - 2020	2011 view	today's view
Global GDP	3.2%	3.0%
Industrial production	3.7%	3.5%
Chemical production (excl. pharma)	4.0%	3.9%
▶ thereof growth contribution of emerging markets	89%	82%



**Kurt Bock:** Thank you, Hans, for your review. – What does it all mean? Where do we want to take this company? Where do we take BASF? What I like to do is to give you a snapshot about our future strategic direction and to talk about strategic drivers. Many of them, I think most of them you already know. There will be some new information and there will be variations of themes. There will be also some information which we have known for many years because from our point of view there was no need to change. But there are a couple of adaptations.

Let's start with the forecast how our markets from our point of view might develop. The industry will continue to grow; that is good news. It will grow a little bit slower than what we had envisioned in the past. But this is really just a small variation. The share of emerging markets is coming down a bit. This is reflecting lower growth expectations in emerging markets. But it is also the expectation that some of the mature markets will finally catch up. But there is a but to this development because this looks like a straight-line development going into the future and we all know it is difficult to predict the future; normally it is not going to happen what you expect to happen. So you have to be ready for what might be different.

## Fundamental growth trends intact; but increased volatility

150 years



- Emerging markets with lower growth dynamics
- Potential overcapacities due to shale gas induced US-investments
- Oil price has to go up: when, how much?

**This will require constant adaptation:**

- Balancing risks through diversified portfolio
- Flexibility of asset base
- Timing of strategic measures

## Our strategic principles

150 years



**We add value as one company.**



**We drive sustainable solutions.**



**We innovate to make our customers more successful.**



**We form the best team.**

Even if we get the trend right, I think we are up to a period of increased volatility and uncertainty. I have depicted here just a couple of points we are all aware of. We see obviously lower growth dynamics in the emerging markets. The BRICs are running only on one cylinder and not on four cylinders anymore and even that cylinder, China, is much less powerful than just a couple of years ago.

We talked about overcapacities in Asia. We have to be aware that there is a huge investment stream going on in North America, a couple of hundred of billions being announced in new capex. We have to think very hard about how this might affect our markets and whether this is an opportunity in terms of feedstock or whether that might be a threat for some of our products.

We all know that the oil price has to go up. It is not sustainable where it is right now because at this current price the reserve ratio will come down quite dramatically just a few years from now. Yet nobody knows how fast and when this increase will really start.

All of this means that we have to make sure that our business models are highly, highly flexible, that we can adapt our asset base as quickly as possible as we have been able to prove in the past and that we also have to think very hard about the timing of some of our strategic measures in order to get the timing as perfect as possible. I tell you, timing is never perfect from our point of view. If it is perfect, it is probably a coincidence.

A couple of things are fundamental for our company and this has not changed. This is about our strategic principles; you know them. We have just four, but they are really important and they are instrumental to how we run our business as One Company. We add value as One Company. We really try to capture the sustainability trend not just in being green, but in really providing technologies and solutions for a growing world population. This is about customer intimacy and innovation; more about this today. It is certainly also about further developing our entire team.

## The way forward: Our priorities

150 years



- **Grow sales and earnings faster than global chemical production, driven by**
  - Continued focus on innovations
  - Capital expenditures
  - Acquisitions
  - Operational excellence and Verbund advantages
- **Continue to prune our portfolio**
- **Maintain industry-leading position in sustainability**
- **Focus on cash generation / conversion**

BASF Investor Day 2015 – Keynote Speech

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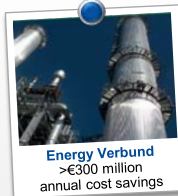
## Verbund remains the cornerstone of BASF

150 years



### Verbund: the basis

**Verbund generates >€1 billion p.a. global cost savings & supports sustainability**



### Verbund: a different perspective

Example: Copper-Chabazite catalysts  
Industry-leading technology for NO<sub>x</sub> control

Intermediates	Catalysts
<p>Cost efficient, industrial scale production for catalysts template</p>	<p>Development, production and marketing of NO<sub>x</sub> reduction catalyst</p>

BASF Investor Day 2015 – Keynote Speech

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What are our priorities going forward? We want to grow sales and earnings faster than chemical production, continue to grow sales and earnings faster than chemical production. We will continue to focus strongly on innovation, again because this is the core of our competitiveness. I will briefly talk about acquisitions and capital expenditures, what we plan for the future and certainly, as Hans already alluded to, operational excellence and the Verbund topic is always at the core of what we are doing.

Portfolio pruning will remain very, very important. We want to maintain our industry-leading position in sustainability, not just because it is a good selling point with the public but because it really drives our business; I will give you examples later on. And we will focus on cash generation and cash conversion.

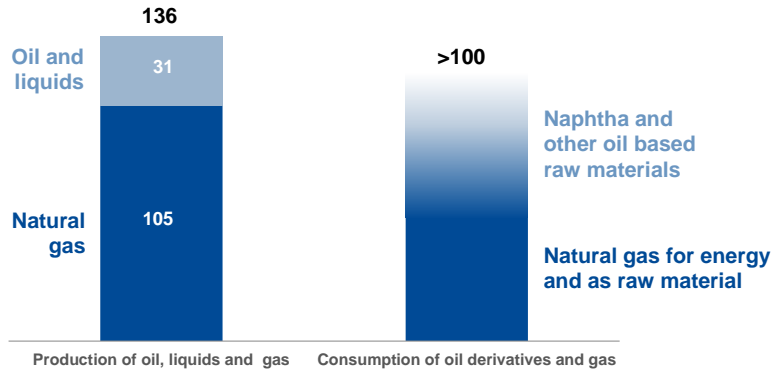
Let's start with the Verbund. We have all known this for 150 years. This is a cornerstone of BASF's profitability. It will remain one, I can assure you. This is not just about product integration or process integration which you will be able to witness tomorrow when you have a plant tour here in Ludwigshafen. It is also about innovation and technology. There is one example, actually. This example we depicted before the recent discussion about NO<sub>x</sub> emissions erupted. We could not foresee that this was going to happen. This is a catalyst which we have invented based on a technology which we acquired from Engelhard in 2006 where Engelhard was not able to really bring this product to the market because there was a lack of expertise of catalyst know-how at the end of the day. Our team was very, very quickly able to bring everybody to the table. Within a few years we made this a viable production. Just to give you an idea: We reduced the number of production steps from initially 13 to 6. This copper-chabazite catalyst is able to absorb 99 percent of NO<sub>x</sub> emissions and it is being sold very, very successfully around the globe. So, Verbund will remain important for BASF and it is a broad and very comprehensive concept how we run our businesses.

## Managing volatility: BASF almost perfectly hedged on hydrocarbon price changes

150 years



**BASF production and consumption of oil and gas**  
(in million boe, 2014)



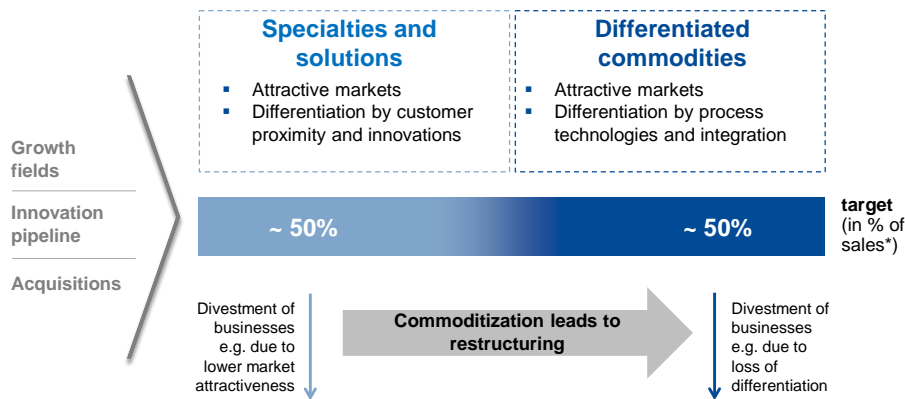
### BASF hydrocarbon consumption almost equals hydrocarbon production

BASF Investor Day 2015 – Keynote Speech

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## Strategic lever: Continuous portfolio development

150 years



### Keep a balanced portfolio

BASF Investor Day 2015 – Keynote Speech \* Excluding Oil & Gas sales

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Let's talk about Oil & Gas, essentially. Why do we have it? First and foremost, it is a very good business. It makes tons of money and also very good free cash flow. But there is also a strategic rationale behind it and you know about it. This is really about having what we call a hydrocarbon hedge. We are pretty much hedged in terms of how many barrels of oil and gas we produce and how many barrels of oil and gas we consume for our chemical production. This is certainly not perfect, but we actually produce slightly more than we need. But please keep in mind, we produce more natural gas than oil and obviously in our production we need more oil-based feedstocks than natural gas.

We will continue to look at our portfolio. This is a little bit new slide compared to what you have seen in the past. Essentially, we differentiate here between two types of businesses or business models. One is called specialties and solutions; this is very much about customer intimacy, technology, innovation where we can really make a difference in the marketplace. Then we have commodities; we now call them differentiated commodities. I think this sounds much more sophisticated. Yet they are still commodities. Essentially, what we are trying to say is, we try to be in commodities where we can really have a competitive advantage – raw material-wise, integration, Verbund, technology. That is where we want to differentiate ourselves from pure commodity players.

Obviously, this portfolio is under development as we speak. There is a constant flow of new ideas, new products, new processes into our product portfolio. But there is also an ongoing commoditisation, which is nothing new for our industry; this has happened for 150 years. The rate of commoditisation is sometimes faster, sometimes slower. At the end of the day, we have to draw our conclusions from that. If we cannot overcome commoditisation by better technology, more innovation, better business models at the end of the day, this is also about divesting a business and finding a new home. So portfolio pruning is and will remain a very, very important cornerstone of our activities.

## Strategic lever: Acquisitions

150 years



### We want to acquire businesses which ...

- Generate profitable growth above the industry average
- Are innovation-driven
- Offer a special value proposition to customers
- Reduce earnings cyclicality
- Provide a minimum return on investment of 8% p.a. after tax
- Are EPS accretive by year three at the latest

#### Strategic acquisition criteria

#### Financial acquisition criteria

BASF Investor Day 2015 – Keynote Speech

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## Strategic lever: Capital expenditures – our philosophy

150 years



### Differentiated commodities

- With proprietary technology and/or Verbund advantages
- Focus on:
  - emerging markets
  - backward integration in the US
  - upgrading our asset base in Europe

### Specialties and solutions

- Incremental investments for new products
- Regional expansion of businesses

### Oil & Gas

- Focus investment budget by active portfolio optimization to secure free cash flow
- Keep reserve-to-production ratio of approx. 10 years

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We have been relatively cautious on acquisitions over the last couple of years. Since 2010, 2011 we have done a few acquisitions; you saw the numbers. Some people might even say, we didn't do enough. Yet we had a clear focus on organic growth to bring new capacity around the globe into our business. In terms of acquisitions, the criteria haven't really changed. These are still relatively high hurdles, especially when you keep in mind that since 2010 the valuation multiples in the chemical industry have gone up by 40 percent. So the low hanging fruit – something which is a good strategic fit and financially very, very attractive – are gone. It is much more difficult today, at least from our point of view, to acquire companies which immediately add value including our integration efforts.

Let's talk about capex. I know this is a little bit of concern for some of you because there is a little bit of feeling that maybe BASF has overspent over the last couple of years. What is our philosophy? What really drives our decision making, apart from doing good business models and decent economic studies? The philosophy is really that we want to continue to grow in emerging markets, essentially with commodities or differentiated commodity products, because the emerging markets in terms of lifecycle are much earlier and they need these products and BASF has something to offer.

We also will continue to invest into backward integration in North America to renew our raw material base there, taking essentially advantage of the shale gas situation, which also means: Whatever we do in North America is improving our profitability; it is not necessarily driving top line because it is really about replacing "buy" with "make" based on decent economics. This is an interesting discussion right now because with the oil price coming down to 50 and the gas price being where it is right now, the economics are less attractive than one or two years ago.

Third point: We constantly invest in upgrading our assets here in Europe. Europe is still our home base; you have to keep that in mind. About 50 percent of our production capacity globally is in Europe and we have to make sure that that capacity with everything we are doing here, including portfolio measures, is competitive. You will see examples tomorrow when you have the site tour, e.g. the new TDI plant, which is not just a new TDI plant. It is really the renovation of a core piece of our Ludwigshafen site to make sure that we stay profitable in the future as well.


This is very much about differentiated commodities. Then we talk about specialties and solutions which, in terms of number of projects, is much higher, in terms of size of projects, individual projects, is much lower. For instance, in construction chemicals you can build a new mixing station for concrete additives for just a few million bucks; that is not really that important from our point of view. But it is important for the construction chemicals business. That is a way how they have grown the business over the last couple of years.

So, this is very much about regional expansion and incremental growth for specific products. But we are not talking huge numbers here.

In Oil & Gas we have something at hand which the chemical business actually doesn't offer, which is very, very important in Oil & Gas: We can easily divest assets. It is a give and take, almost. So we can tailor our capex budget in Oil & Gas essentially by farming in and farming out – farming out of assets which are relatively old or have a cash flow profile which is not really that attractive. That means this is an area where we can optimize quite nicely and Hans will talk about this later during our conference. Our goal for Oil & Gas is essentially to keep a reserve to production ratio of about ten years. Right now we are slightly above, but this number can fluctuate from time to time.

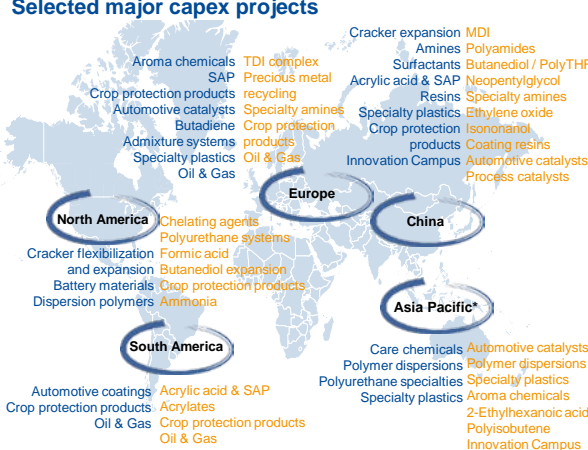
## Implementation of increased capex program will drive profitable growth

150 years



**BASF**  
We create chemistry

### Selected major capex projects



### Capex spending

- Temporarily increased capex is necessary
  - to build the base for further growth
  - to strengthen our value chains
  - to increase our footprint in emerging markets
- Capex peaked in 2014 with €5.4 billion\*\*

**Start-ups 2011 - 2014**      **Start-ups planned for 2015 - 2017**

BASF Investor Day 2015 – Keynote Speech \* W/o China; \*\* Investments in property, plant and equipment (without acquisitions)

## Strategic lever: Innovations – our philosophy

150 years



**BASF**  
We create chemistry

- **Allow for creativity**
- **Balance incremental und disruptive innovations**
- **Manage innovation pipeline efficiently on all levels**
- **Build on our global R&D Verbund**
- **Leverage external collaborations even more**
- **Align R&D activities with business models:**
  - Differentiated commodities
    - Focus on improving processes and addressing raw material change
    - Launch selected product innovations
  - Specialties and solutions
    - Develop new, tailored offerings in close collaboration with customers
    - Pursue solution-oriented approach
- **Keep annual R&D spending at ~3% of sales\***

BASF Investor Day 2015 – Keynote Speech \* W/o Oil & Gas

We invested quite a bit; that is true: 5 billion euros plus last year, 4.5 approximately this year. When you look at this slide, you can see the projects which came on stream between 2011 and 2014. You can read it yourself. It is quite a big number of projects around the globe, which we believe will drive future growth and profitability of BASF. This is already history, you might say, because they are already in operation.

Then, secondly, there are quite a few projects which will come into operation going forward, between 2015 and 2017. I would highlight just a few of them, e.g. when you look at Asia, at China. The investments we are doing there are very much focused on the automotive industry, catalysts, coatings, light-weight materials. You can rest assured: We have many, many customers in China and not just German customers, to make this very clear. So we are taking part in the growth of the automotive industry in Asia and in China.

These projects are supposed to generate growth and profits for the next couple of years. That was the underlying idea when we started this investment three, four, five years ago. Yet it looks at this point in time like global economic growth might slow down a little bit; we see increased volatility. But you have to make sure that these capacities are in place.


Probably the most prominent example is actually Brazil. In Brazil, five years ago we made the decision to invest in acrylic acid and superabsorbents. That is the only acrylic acid plant in South America and the only superabsorbent plant in South America. There is a market because there is a growing middle class. What we did not foresee four, five years ago is that Brazil would tank. They are in a big recession right now. It is very difficult to foresee how long it will take them to really turn around and grow again. Yet for our products there will be a market and demand and we are quite confident about the project and its future. But it is certainly a little bit more difficult today to achieve our targets than three or four years ago when Brazil was a booming country.

You might ask the question: If you had known this four years ago, would you have still invested? The answer is: yes, because it was the one and only opportunity to build this market presence in Brazil. There will not be a second acrylic acid plant and superabsorbent plant for many, many years to come and it will generate growth and earnings for BASF.

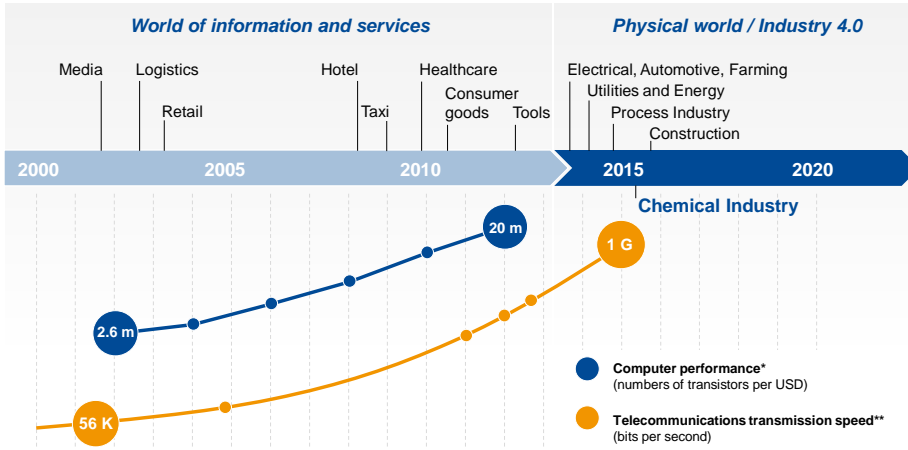
That is capex. We will talk quite a bit about innovation. I do not want to go into too much detail today because we need some time for discussion as well. As Hans said, roughly 3 percent of sales without Oil & Gas, that is just input. What is important is really output, efficiency and effectiveness of R&D. We have quite a few tools in place to ensure this; you will learn more about this tomorrow, specifically when Martin Brudermüller will talk about innovation.

You will also learn about one example, which is a complete left-field surprise for you – you can be sure about that one –, a technology which we had not foreseen a couple of years ago to become viable. You will probably also be a little bit surprised when you learn how we drive innovation and talk specifically about what it really means at BASF.

# Strategic lever: Innovations Industry 4.0

150 years  
  
 We create chemistry

Computer performance and speed of information sufficient to impact physical world



BASF Investor Day 2015 – Keynote Speech Source: \* Linley Group; \*\* T-Mobile



BASF Investor Day 2015 – Keynote Speech

There is one area of innovation which is not really about products and processes, which is very much about business models, which is also important. Everybody talks about industry 4.0. Industry 4.0 is a little bit of a buzzword. People ask, what does it really mean? We try to capture it here in this slide, which essentially has three components. One is really the development of computer performance – blue line – and the development of telecommunication transmission speed. Essentially these lines are exponential when you depict them correctly, which means we have today a technology available which just a few years ago was not really available, which also means for a process-driven industry like chemicals, only today we have the technology which we really need to digitalize our industry.

We are not an insurance company, we are not a travel agency, we are not a discrete manufacturer of things sitting somewhere in China or Vietnam. We are a process-driven industry; we need different technologies becoming available. This is the case now. The big question is now for BASF: What are you doing with this kind of opportunity?

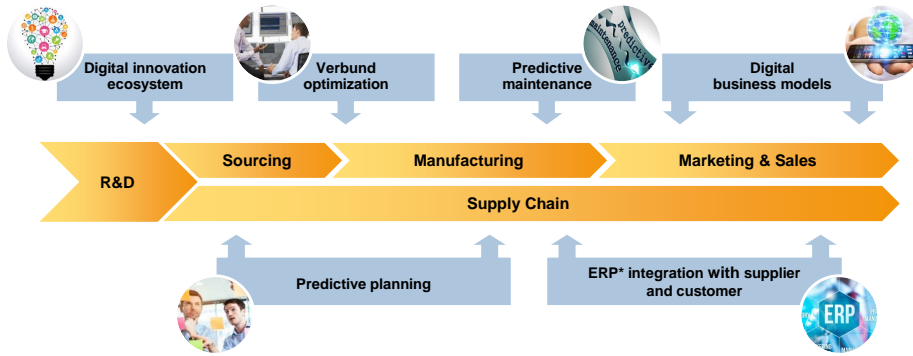
There are many opportunities; some of them are with customers and suppliers, also about new business models. There are also opportunities which are relatively close to what we are doing anyway: technology maintenance, how we run our operations. Just to give you a little bit of a glimpse what it could mean and will mean at BASF I would like you to watch a short movie about maintenance, not just of the future, but probably already of tomorrow.

# Strategic lever: Innovations

## Industry 4.0 will benefit BASF in the future

150 years

### Applications along BASF's value chain



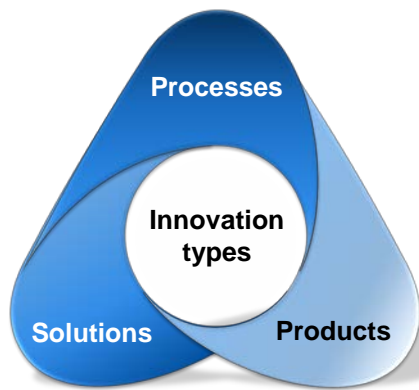
Several opportunities identified at every step of BASF's value chain

BASF Investor Day 2015 – Keynote Speech \* Enterprise Resource Planning

# Strategic lever: Innovations

150 years

### Innovation types



Developing solutions for many aspects of life  
(Innovation examples to be presented tomorrow)



BASF Investor Day 2015 – Keynote Speech

I hope you got the message. This is not just predictive maintenance. This is really about speeding up the way how we operate and, to be much more precise, to really link information around the globe, to have very deep communities which are digitalized and can share information. This will require, by the way, also quite some changes to how we manage and how we run our operations. This is just one example. We have many, many projects going on as we speak. The results are quite interesting, to put it mildly. We are quite optimistic that this a technology, a concept which can really drive not just efficiency, but also make us more competitive in the market. This needs a little bit of imagination. This is certainly at our 150<sup>th</sup> birthday a little bit of a challenge sometimes to imagine that something is completely different in the future, but we have teams in place who think exactly along those lines and who challenge existing business models and ask the question: Can we do this completely differently? Or what would be the worst case or what would be the biggest hit to our business? And what would it mean and what can we do to prevent this to happen and really to turn this around into an advantage for BASF? This holds true for operations and manufacturing, but it also holds true for interactions with customers and suppliers. Everything we have seen so far tells me: This is probably gaining speed and importance much faster than what we had imagined just a few years ago – again, based on now finally available technology which is really mature, fast and powerful enough to drive these changes.

# Sustainability and transparency are key to BASF's strategy

150 years



## Clear sustainability targets, e.g.

	Status 2015	Target 2020
<b>Energy &amp; climate protection</b>		
<ul style="list-style-type: none"> <li>Greenhouse gases* -34%</li> </ul>		-40%
<b>Safety, security and health</b>		
<ul style="list-style-type: none"> <li>Lost-time injuries -55%</li> </ul>		-80%
<b>Portfolio evaluation completed</b>		

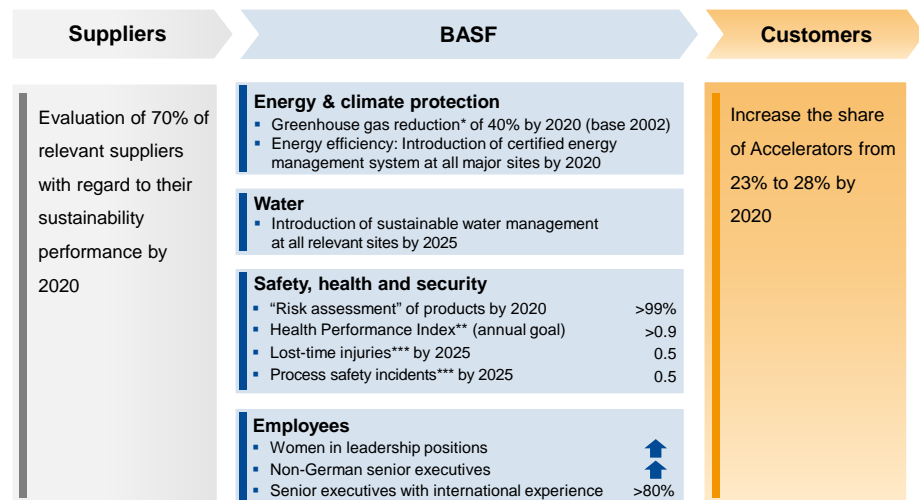
## Public recognition for sustainability and transparency\*\*

BASF Investor Day 2015 – Keynote Speech \* Per metric ton of sales products/excluding oil and gas production; \*\* Examples

# Strategic lever: Sustainability

## Sustainability goals along the value chain

150 years



BASF Investor Day 2015 – Keynote Speech \* Per metric ton of sales products/excluding oil and gas production; \*\* Highest possible score 1.0; \*\*\* Per one million work hours

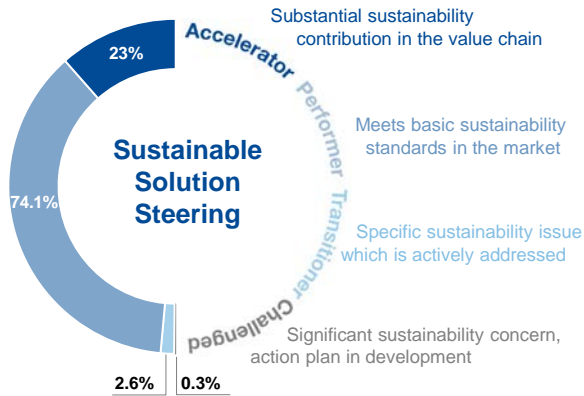


I talked about innovation. Innovation is also driven by our desire to produce more and better products in terms of sustainability. Let's talk about sustainability for a minute, just to give you the short version of that presentation. We think that BASF is a leader in that field. We pay utmost attention to our sustainability record, what we do, how we do it, how we talk about it. Transparency is key to gain and maintain the trust of the public or stakeholders. You can see here that we have very challenging targets set for ourselves. And this is also recognized by various organizations around the globe. I know that this is also important for many of you now as investors: I can only tell you that the chemical industry from my point of view is one of the key drivers for providing solutions for many, many issues which we are facing in terms of sustainability. We might have some problems with some parts of our business around the globe in our industry, yet we see enormous progress in that respect, also in emerging markets where more and more companies get very, very serious about their track record in terms of sustainability.

Sustainability is not just environmental issues, it's also social issues and also economic performance at the end of the day. We will set ourselves a couple of new targets which you can find on this slide. I am not going into too much detail here. They will be presented again tomorrow. But there is one example I like to talk about because this is really new and this is something new also conceptionally, not just a new target, but really the way how we run the business. And this is what we are doing with our customers. The question was always: Okay, you can talk about your production environment and your waste streams etc. and CO<sub>2</sub> but what about your products? How sustainable are your products? And what is really a good yardstick to make that decision? Our first response would be: Everything is obviously legal, highly, highly regulated, so what is the problem? But then, after thinking about it for a bit, we came to the conclusion: Maybe we take a different look at our portfolio and really try to understand to what extent our products really provide an advantage in terms of sustainability.

# Strategic lever: Sustainability Sustainable Solution Steering

150 years



- Novel methodology to screen and steer our portfolio\*
- 23% Accelerators:
  - outgrow their markets by 2-10%
  - deliver margins >10% above the average
  - represent >60% of BASF's R&D pipeline
- 74% Performers
- <1% of Challenged products

**Increase the share of Accelerators from 23% in 2014 to 28% by 2020**

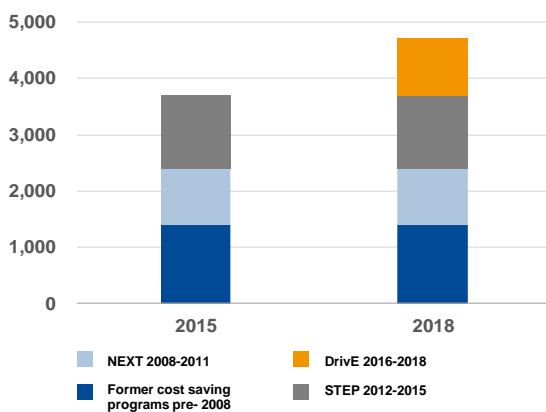
BASF Investor Day 2015 – Keynote Speech \* 60,000 product applications analyzed; covering 98.3% of the relevant portfolio or €66.3bn. in sales (2014 data)

# Strategic lever: Operational excellence DrivE with ~€1 bn earnings contribution

150 years



**Annual earnings contribution**  
(in million €)



**DrivE program**

- Targeted annual earnings contribution of €1 billion by end of 2018
- Optimization of processes and structures in all regions, e.g.
  - manufacturing
  - incremental capacities
  - productivity increase
- Project timeline: 2016–2018

BASF Investor Day 2015 – Keynote Speech

For that reason we introduced Sustainable Solution Steering. One of the categories is supposed to be replaced as soon as possible, substituted with better solutions. Some of them really drive a competitive advantage. Those who drive a competitive advantage we call “Accelerator”. They have a superior sustainability profile. This is measured in very detail. Actually, today they make about 23 percent of our products. These products have, on average, higher growth, higher profits, a better sustainability profile. We have very few products, essentially 1.3 percent of our portfolio where you could say: Yes, maybe that’s not really what we want. Is a better substitution available? We are working very hard in research to find that substitute, although – that’s very important – obviously that product is approved and can be sold. But according to our standards we think there must be something better to provide to our customers.

And we want to increase the share of accelerator products from 23 percent currently to 28 percent. This covered, by the way, 60,000 products which we analysed in detail. This tells you also quite a bit about the diligence which we apply here and about our approach to sustainability: We are a science-based, fact-based company. When we talk about it, we try to make sure that we got the facts right and that this is really something which can be effectively communicated.

Operational excellence: This doesn’t sound very strategic, but yet it is important to keep us going and to improve our profitability. We have had several programmes over the last couple of years. The last one, STEP, will come in at a much higher number than we had expected. We had planned 1 billion euros. Actual savings improvements will be 1.3 billion euros until the end of this year. So it’s time now to come up with the next programme. That is now called DrivE. That is another 1 billion euro earnings contribution from 2016 to 2018. We are very confident that we will be able to implement this thoroughly and quickly. We have many projects. This is really supported by not just project ideas, but by real projects which are ongoing as we speak. It will require a certain investment in one-time cost, but, obviously, these are very, very economic measures, there are very short payback times.

## Strategic direction chemicals business\*: Profitable growth

150 years



- **Utilize and expand unique Verbund integration**
- **Flexible business models**
- **Strong operational excellence**
- **Specialties and solutions:**
  - Focus on fast-moving, customer-facing end markets
  - Differentiate through knowledge-based offerings, innovative and sustainable products and solutions
- **Differentiated commodities:**
  - Focus on integrated value chains with competitive advantages
  - Differentiate through process innovations and stringent cost management
  - Focused capex to support growth

BASF Investor Day 2015 – Keynote Speech \* Our chemicals business comprises of the Chemicals, Performance Products, Functional Materials & Solutions segment

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## Strategic direction Agricultural Solutions: Feeding a growing population

150 years



- **Continue profitable growth in all indications**
- **Differentiate through strong innovation pipeline**
- **Continue to expand our portfolio to Innovations beyond Crop Protection**
- **Net sales target of €6 billion in 2015 and €8 billion in 2020**
- **25% average annual EBITDA\* margin target**

BASF Investor Day 2015 – Keynote Speech \* Before special items

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With that I would come to a conclusion with regard to the strategic drivers I was going to talk about. I will now give you a very quick overview of what you have to expect from the different businesses you will have deeper sessions on later today. We will start with the chemicals business. Chemicals is, from our point of view, the Chemicals segment, Performance Products and Functional Materials & Solutions. This is a pretty broad range of products, obviously, but we will continue to drive for Verbund integration. I think this is important not just in commodities, but also in what some people might call specialties. I have talked about flexible business models. Especially in light of the uncertainty and volatility we are facing, we will continue to focus very much here on operational excellence. Especially in commodities and obviously in specialties and solutions this is very much about innovation. More about that today. In commodities, it's about integration technology, process technology and raw material and also some capex which we need to support growth, especially in emerging markets.

Agricultural Solutions is an interesting business because it is in an interesting phase right now. We have had a couple of excellent years for BASF, tremendous growth, very good profitability. You know about our target 25 percent EBITDA margin on sales, which we have achieved very consistently. We have an excellent pipeline, we are very proud of what we are doing here. The pipeline will not in every single year produce equally successful products. Sometimes you have one or two years when you have to wait for the next blockbuster, but you can rest assured, we have quite some projects under way which will materialize and will drive future growth. For that reason we are optimistic that we can continue to grow that business, even having in mind that 2015 in terms of soft commodity prices, agricultural markets are faced with headwinds. And we wanted to achieve the 25 percent EBITDA margin which doesn't mean necessarily: in every single year. That's what we prefer to achieve, but I can't promise you that we will do it in every single year. That is ag. I am sure you will have a couple of questions with regard to ag, given the market events which we have all followed over the last couple of months.

## Strategic direction Oil & Gas: Selective growth in E&P

150 years



- **Continue to generate industry-leading profit margins**
- **Continue to provide hydrocarbon hedge**
- **Strengthen E&P activities in core regions and activities with limited exploration risk**
- **Focus on**
  - key partnerships
  - operational excellence
  - active portfolio management
- **Keep ambitious production growth target for 2018 of ~190 million boe**
- **Generate strong free cash flow**

BASF Investor Day 2015 – Keynote Speech

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## Profitability of BASF will grow faster than global chemical production

150 years



### Financial targets for next years

- **Sales growth\***  
Slightly faster than the global chemical production
- **EBITDA growth**  
Well above global chemical production
- **Deliver attractive returns**  
Earn a significant premium on cost of capital
- **Remain a strong cash provider**  
Continuously generate high levels of free cash flow
- **Progressive dividend policy**  
We want to grow or at least maintain our dividend

BASF Investor Day 2015 – Keynote Speech \* Without considering Natural Gas Trading and Storage business

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Then Oil & Gas: We want to continue to generate industry-leading profit margins. This is a very attractive business for BASF and, actually, on average it produces higher returns than the chemical business. We want to maintain this hydrocarbon hedge which will serve us well in the future. You might say, okay, you now see in 2015 the negative impact because you got a hit in Oil & Gas. Yet, that is the reason why you have a hedge in good years and in less attractive years from the Oil & Gas point of view.

We will strengthen our E&P activities in core regions. You have followed our recent announcement with Gazprom where we will invest in, from our point of view, very attractive essentially natural gas fields in Western Siberia which means we will focus on a couple of key partnerships and – when I talked about capex I mentioned this – we will continue to have active portfolio management also to tailor our capex to our needs and expectations. And we want to grow our production to about 190 million boe in 2018. At the end of the day, this business is supposed to generate a strong free cash flow.

If I try to summarize this now, coming to an end of the presentation, having talked about the individual parts of our business, now talking about BASF in its entirety: We want to continue to grow faster than the chemical market. That is a challenging target, especially when you have in mind that about 50 percent of our asset base is still in Europe and obviously the emerging markets are growing faster than Europe. So we have to outperform in some of the emerging markets. I have not said that this is organic growth only, by the way. We have never said this. We always said: This is the entire growth of BASF. So this also obviously includes portfolio management, M&A.

We want to grow our earnings above sales. That doesn't sound very exciting at the first glance, but when you think about it for a second, it is a challenging target, given the environment we are facing and the volatility we are facing.

At the end of the day, we want to improve our return on asset. Hans showed you these three pictures, 2000, 2010 and then 2014 where we are, also in terms of capital productivity. We know we can improve and we will improve going forward. We will continue to be a strong cash provider, free cash flow is also a very, very important KPI for BASF and, obviously, we will not change – in case you expected this to happen – our dividend policy. We think our dividend policy is a good one to continuously increase dividend and if there is really a big problem, then to maintain it at its current level. These are challenging targets, growth and earnings-wise. We are deadly serious about achieving them.

## The way forward: Our priorities

150 years

**BASF**  
We create chemistry

- **Grow sales and earnings faster than global chemical production, driven by**
  - Continued focus on innovations (R&D spending about 3% of sales\*)
  - Capital expenditures (slightly above depreciation levels)
  - Acquisitions
  - Operational excellence and Verbund advantages (€1 billion program; 2016-2018)
- **Continue to prune our portfolio**
- **Maintain industry-leading position in sustainability**
- **Focus on cash generation / conversion**

BASF Investor Day 2015 – Keynote Speech \* Excluding Oil &amp; Gas sales

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## 5 numbers to take home

>€15 billion free cash flow\*

>€18 billion invested into new or expanded capacities\*

~€12 billion dividends paid\*

~€9 billion investments into R&D\*

## 150 years of excellence

BASF Investor Day 2015 – Keynote Speech \* Aggregated figures 2010 - 2014

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Let me summarize: We want to continue to grow. We want to continue to improve our profitability. We have to be very conscious about capex. M&A will continuously play a role within BASF, but I explained to you: The market is a little bit more challenging than six or eight years ago. Opex is always a cornerstone of our success and we just announced a new programme called DrivE. We want to maintain our industry-leading position in terms of sustainability and we will continuously focus on cash generation and conversion.

To sum this up now: During all your presentations, you will get one final slide. This slide always has five numbers to take home. In this case, I took the liberty to add a sixth one which I will mention: We are a strong cash flow provider, we invest a lot for creating our future. We are very conscious to pay dividends our shareholders expect to see. We will continue to invest heavily, heavily in R&D because this is really the cornerstone of our future growth and profitability. And we will do so – that is the sixth number – as One Company. This integrated way of running things, also pruning and trying to improve is really the overall philosophy and approach how we run this company.

With this, I'd like to thank you for your attention. We are now ready to take your questions.

