

BASF Annual Press Conference for the year 2022

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# Speech

Presentations by

Dr. Martin Brudermüller, Chairman of the Board of Executive Directors, and  
Dr. Hans-Ulrich Engel, Chief Financial Officer of BASF SE

The spoken word applies.

Good morning, ladies and gentlemen,

Hans Engel and I are very happy to welcome you here in Ludwigshafen today. We are particularly pleased that after two years of hosting entirely virtual Annual Press Conferences because of the pandemic, we are now finally able to meet in person again.

However, we are gathering on a sad day: Exactly one year ago, Russia invaded Ukraine. War is still raging in the middle of Europe. We condemn Russia's attack. For the Ukrainian people, it is a catastrophe. The past year has taught us all a harsh lesson: Peace and economic stability must never be taken for granted.

The consequences for the global economy have been tremendous. 2022 was marked by great uncertainties, rising energy prices, inflation and concerns about widespread economic distortions.

**[Slide 2: Agenda]**

On January 17, BASF released preliminary figures for the full year 2022. Today, Hans Engel and I will first provide you with further details regarding our business development in the fourth quarter and the full year 2022. In the second part of today's press conference, we will also take time to present the measures announced last autumn that we are taking to strengthen our competitiveness in Europe and particularly in Germany.

**[Slide 3: Global chemical production grew by 2.2% in the full year 2022 and by only 1.0% in Q4 2022]**

Let's start with the challenging macroeconomic environment. Over the course of 2022, the global macroeconomic environment deteriorated significantly. And there are currently no signs of substantial improvement in the short term.

Russia's war against Ukraine, high inflation and the sharp increase in energy prices led to a significant slowdown in consumer demand, particularly in Europe. To combat inflation, central banks raised interest rates considerably, which further dampened consumer spending.

Demand in our customer industries softened in the course of 2022 – with two exceptions:

Global automotive production reached 82 million units in 2022, according to current data. This represents an increase of 6 percent compared with the very low level of the previous year. Supply shortages, particularly for semiconductors, have gradually eased. For 2023, we expect a slight increase to around 84 million units.

Global agricultural production also continued to grow moderately in the course of 2022. However, overall production growth was lower than in 2021, partly reflecting normalization following higher-than-average growth in 2021. In addition, production growth was impacted by longer spells of drought in several regions as well as production disruptions in Ukraine as a result of the war.

Let's now look at chemical production by region. Based on currently available data, global chemical production grew by only 2.2 percent in 2022. While the markets in China and North America grew, chemical production declined massively in Europe and also fell in Asia excluding China.

Chemical production growth in China slowed slightly in 2022 compared with a strong baseline in 2021. This was mainly due to lower demand as a result of COVID-related lockdowns.

In North America, chemical production increased compared with 2021. Growth in 2021 had been negatively impacted by the freeze in the first quarter and the hurricanes in summer and autumn.

Chemical production in Europe declined substantially. Lower demand and high energy prices led to shutdowns of selected production capacities, especially in the second half of 2022. This was particularly apparent in Germany, where chemical production declined by around 12 percent in 2022.

Lower demand and higher energy prices were also the main reasons for the decline in chemical production in Asia excluding China.

As the following remarks will mainly focus on BASF's business performance in the fourth quarter of 2022, I will also briefly comment on chemical production in the last quarter of the year: In the fourth quarter of 2022, global chemical production increased by only 1.0 percent. A considerable increase was only seen in China, which was surprising in the overall weak environment. This was partly driven by a base effect, as chemical production in China had been negatively impacted by

electricity cuts in the fourth quarter of 2021. All other regions recorded a decline in chemical production, which was most pronounced in Europe.

**[Slide 4: Q4 2022: Sales decreased slightly, mainly due to lower volumes]**

Ladies and gentlemen,

Moving on to BASF: In the fourth quarter of 2022, our sales decreased by 2 percent to €19.3 billion, mainly on account of lower volumes.

Sales volumes declined by 15 percent. With the exception of Agricultural Solutions, all segments recorded lower volumes. Sales prices increased by 9 percent. All segments were able to increase prices except for Chemicals, where prices declined on account of weak demand. Portfolio effects of minus 1 percent were mainly caused by the sale of the kaolin minerals business, which had been part of the Performance Chemicals division until the divestiture.

Currency effects of plus 4.5 percent had a positive impact on sales and were primarily related to the U.S. dollar.

**[Slide 5: Q4 2022: BASF's EBIT before special items declined primarily due to lower contributions from the upstream segments]**

Let's now move on to our earnings development by segment in the fourth quarter of 2022 compared with the strong prior-year quarter.

The overall decline in EBIT before special items resulted largely from considerably lower contributions from the Chemicals and Materials segments. In the fourth quarter of 2022, these two segments contributed only €65 million to BASF Group's EBIT before special items, compared with €933 million in the prior-year quarter. This was mainly due to lower volumes and margins on the back of low demand and high energy and raw materials prices.

In total, earnings in BASF's four downstream segments improved by €229 million and amounted to €393 million. While the Agricultural Solutions and Surface Technologies segments were able to increase earnings, EBIT before special items in the Nutrition & Care and Industrial Solutions segments declined compared with the prior-year quarter.

In the full year 2022, EBIT before special items decreased by €890 million to €6.9 billion compared with a very strong performance in 2021. Considerably higher

earnings in BASF's downstream segments only partially compensated for significantly lower earnings in BASF's upstream segments. Margins in the Chemicals and Materials segments were extraordinarily high in 2021 and in the first half of 2022 but declined significantly in the second half of the year.

Now I would like to hand over to Hans Engel for further details on our financial performance in 2022.

**[Hans-Ulrich Engel]**

**[Slide 6: BASF Group Q4 2022 and full year 2022: Financial figures]**

Good morning, ladies and gentlemen.

In the following, I will provide you with further details of BASF Group's financial figures in the fourth quarter of 2022 compared with the prior-year quarter:

I will start with EBITDA before special items, which decreased by 36 percent and amounted to €1.4 billion. EBITDA amounted to around €1.4 billion, a decrease of €862 million. At €373 million, EBIT before special items declined by 70 percent.

Special items in EBIT amounted to minus €254 million compared with plus €1 million in the fourth quarter of 2021. The special items were mainly related to non-cash-effective impairments on plants in Ludwigshafen. In the fourth quarter of 2022, EBIT decreased by 90 percent to €119 million.

Income from non-integral companies accounted for using the equity method amounted to minus €4.7 billion compared with plus €112 million in the fourth quarter of 2021. The strong decline was driven by non-cash-effective impairments on the shareholding in Wintershall Dea AG in the amount of about €4.7 billion in the fourth quarter of 2022. These impairments resulted in particular from the deconsolidation of the Russian exploration and production activities of Wintershall Dea due to the loss of actual influence and economic expropriation. The remaining value of the Russian participations of Wintershall Dea declined significantly and further write-downs were made on the European gas transportation business.

You have probably noticed that the impairments I just mentioned are lower than the amount we had in our pre-release on January 17. This deviation resulted from the further analysis of the accounting implications of the deconsolidation.

Net income amounted to minus €4.8 billion compared with €898 million in the fourth quarter of 2021. The decline was driven by the impairment charges I just mentioned.

**[Slide 7: Competitiveness in Europe declined – negative operational earnings in Germany in 2022]**

Let's now look at BASF's operational earnings development from a regional perspective.

Our competitiveness in Europe – and particularly in Germany – has declined. In 2015, Germany, Europe excluding Germany, and the other regions each contributed around one-third to BASF Group's EBIT before special items. In the strong business year 2021, Europe including Germany contributed only one-third of earnings, while the other regions already contributed two-thirds. After BASF recorded its strongest ever first half, earnings softened significantly in the further course of 2022, and we saw a particular deterioration of profitability in our German operations. In the second half of 2022, the contribution of Germany was even negative, and we ended the year with an overall EBIT before special items contribution of minus €126 million.

Ladies and gentlemen,

This development shows how important a balanced regional production footprint is for BASF's risk management. We will therefore continue to strengthen our business growth in fast-growing regions outside of Europe while adapting our business in our home region to reflect the low market growth and challenging framework conditions.

**[Slide 8: In the full year 2022, BASF incurred €3.2 billion higher costs for energy globally]**

One main reason for the earnings decline in Europe is the elevated energy costs in the region.

In 2022, our operational earnings were burdened by additional energy costs of €3.2 billion globally. Europe accounted for around 84 percent or €2.7 billion of this increase, which mostly impacted our Verbund site in Ludwigshafen. Higher natural gas costs accounted for 69 percent or €2.2 billion of the overall increase in energy costs – and again, the main impact was in Europe and Ludwigshafen.

In 2022, we reduced our natural gas consumption by around one-third in Europe. This was primarily due to lower production volumes. Nevertheless, we incurred €2 billion in additional costs for natural gas in Europe alone compared with 2021.

**[Slide 9: Recent developments relating to Wintershall Dea AG]**

I would now like to provide some more details on the current situation for Wintershall Dea in Russia.

In practical terms, Wintershall Dea no longer has any means of exerting influence on its holdings. De facto, Wintershall Dea has been expropriated in Russia. Wintershall Dea therefore intends to fully exit Russia in an orderly manner – as BASF did in 2022, with the exception of businesses that support food production.

Ladies and gentlemen,

What are the consequences for BASF? We had to revalue our stake in Wintershall Dea. Non-cash-effective impairments amounted to €6.5 billion in 2022, reducing net income from shareholdings accordingly. But let me also mention that Wintershall Dea had a strong operating performance outside of Russia and paid around €1 billion in dividends to BASF from its non-Russian businesses. The company thus made a strong contribution to BASF Group's cash flow in 2022.

We stand by our decision to exit the oil and gas business and are sticking to our strategic goal of divesting our share in Wintershall Dea.

**[Slide 10: Strong operating cash flow development in Q4 2022 lifted full-year free cash flow to more than €3.3 billion]**

Let's now look at the details of our cash flow development in the fourth quarter of 2022. Compared with the prior-year quarter, cash flows from operating activities improved by €1.1 billion to €4.5 billion. The increase was mainly driven by changes in net working capital, in particular as a result of a decline in accounts receivable and significantly lower inventories.

Cash flows from investing activities amounted to minus €1.9 billion compared with minus €692 million in the fourth quarter of 2021. In the prior-year quarter, cash flows from investing activities benefitted from a cash inflow of €1.1 billion from the sale of BASF's 49 percent share in Solenis.

Payments made for property, plant and equipment and intangible assets rose by 26 percent to €1.9 billion. Free cash flow thus increased by €749 million to €2.6 billion in the fourth quarter.

**[Slide 11: BASF Group 2022: Overview of financial and non-financial targets]**

Let's turn to BASF's financial and non-financial targets. As explained before, the market environment was challenging. Therefore, we were only partly able to achieve our targets:

In 2022, BASF's sales volumes declined by 7 percent, while global chemical production grew by 2.2 percent. Excluding precious metals, BASF Group sales volumes declined by 3.6 percent. The lower production rates, particularly at our sites in Europe, were the main reason for the decline in volumes.

EBITDA before special items declined by around 5 percent to €10.8 billion, mainly on account of lower contributions from the Chemicals and Materials segments. Our 2022 ROCE of 10 percent was above the cost of capital rate of 9 percent.

As we have a separate slide on the dividend in just a moment, I will move straight on to our CO<sub>2</sub> emissions, which declined to 18.4 million metric tons in 2022 from 20.2 million metric tons in 2021. This was mainly driven by the significant reduction in production volumes and the temporary shutdown of emission-intensive plants. We continued to expand the number of sites partially or fully powered by renewable energy and expect to see a further meaningful increase in the use of electricity from renewable sources in 2023.

**[Slide 12: Attractive shareholder return – also in challenging times]**

Ladies and gentlemen,

Despite the challenging market environment, we achieved a very solid free cash flow. We are committed to our shareholders and will propose a dividend of €3.40 per share to the Annual Shareholders' Meeting. Based on the year-end share price, this offers a high dividend yield of 7.3 percent.

In total, we will pay out €3 billion to our shareholders. This amount is more than covered by the free cash flow generated in 2022.

**[Slide 13: Capex to support future organic growth will peak between 2023 and 2025]**



I will now give you more detailed information on our five-year capex budget. Between 2023 and 2027, we plan capital expenditures of €28.8 billion. Capex in this period will be higher than in the prior planning period from 2022 to 2026, in which we budgeted €25.6 billion. The main reasons for this increase are our two major growth projects: the Verbund site in Zhanjiang and our battery materials activities. These two growth pillars are key to drive BASF's future organic growth and will on average account for roughly €2.7 billion of capex per year during the next five years. On average, the investments in our transformation towards net-zero will amount to will account for around €400 million per year in this period and will then increase towards 2030.

In particular due to the construction of our Verbund site in Zhanjiang, the share of capex in the region Asia Pacific will rise to 47 percent between 2023 and 2027. The European share is budgeted to reach 36 percent and the North American share 15 percent. The remaining 2 percent relate to South America, Africa, Middle East and to investment projects that have not yet been assigned to a specific region.

Investments in BASF's existing businesses will amount to €2.7 billion per year on average. We will ensure a high level of discipline regarding the capex required to maintain and to profitably grow these businesses. For 2023, we plan total capital expenditures of €6.3 billion compared with around €4.1 billion in 2022.

And now I will hand back to Martin Brudermüller for the outlook and then an update on our measures to increase BASF's competitiveness.

**[Martin Brudermüller]**

**[Slide 14: Outlook 2023 for BASF Group]**

Thank you. Ladies and gentlemen,

In the current year, we anticipate only moderate growth in the majority of our customer industries. Our forecast assumes that the war in Ukraine will continue but not escalate further. Even so, the further development of the war and its effects on economic growth are still subject to a high degree of uncertainty. In addition, we are assuming that an acute gas shortage with regulatory cuts to energy-intensive industries in Europe will not materialize. We expect that China's departure from its zero-COVID strategy will have a positive impact on demand and will stimulate growth globally.

Based on these assumptions, we expect the global economy to grow by only 1.6 percent in 2023. We forecast growth of 1.8 percent for global industrial production, while global chemical production is likely to expand by just 2.0 percent in 2023. Our planning assumes an average exchange rate of \$1.05 per euro and an average oil price of \$90 for a barrel of Brent crude. We anticipate elevated and very volatile gas prices in Europe.

In view of these factors, we forecast BASF Group to generate sales of between €84 billion and €87 billion in 2023. EBIT before special items is expected to decline to between €4.8 billion and €5.4 billion. We expect a weak first half of 2023 followed by an improved earnings environment in the second half of the year due to recovery effects, especially in China.

Based on the forecast weaker earnings performance and slightly higher cost of capital basis for BASF Group in 2023, we anticipate a ROCE of between 7.2 and 8.0 percent. We expect CO<sub>2</sub> emissions of between 18.1 million metric tons and 19.1 million metric tons as a result of moderate growth in production and slightly higher capacity utilization at emission-intensive plants.

### **[Slide 15: Agenda]**

Ladies and gentlemen,

As previously mentioned, we would now like to present our measures to increase the competitiveness and profitability of BASF Group.

### **[Slide 16: Measures to increase our competitiveness]**

I will focus on two areas in this part of the presentation. I will begin with the cost savings program focusing on Europe that we announced in October. Then I will provide details about our already announced plans to adapt our production structures in Ludwigshafen as part of the transformation of our Verbund.

### **[Chart 17: Cost savings program with focus on Europe successfully started]**

Let's start with Europe: The region's competitiveness is increasingly suffering from overregulation, slow and bureaucratic permitting processes, and in particular, high costs for most production input factors. All this has already hampered market growth in Europe in comparison with other regions. High energy prices are now putting an additional burden on our profitability and competitiveness in Europe.

Our cost savings program therefore focuses on rightsizing our cost structures in Europe, and particularly in Germany, to reflect these changing framework conditions. We will implement the program from 2023 to 2024. On completion, the program is expected to generate annual cost savings of more than €500 million in non-production areas, by which I mean service, operating and research & development divisions as well as the corporate center. Roughly half of the cost savings are expected to be realized at the Ludwigshafen site.

The measures under the program include the consistent bundling of services in hubs, simplifying structures in divisional management, the rightsizing of business services as well as increasing the efficiency of R&D activities.

Globally, we currently estimate the measures will have a net effect on around 2,600 positions; this figure includes the creation of new positions, in particular in hubs. Program costs are expected to amount to around €400 million. This figure includes training and qualification measures, relocation costs and severance packages. Employee representatives in the relevant bodies have been and will continue to be involved regarding the various measures.

Ladies and gentlemen,

Let's now move from the non-production areas to production at our largest site worldwide in Ludwigshafen.

### **[Chart 18: Verbund site Ludwigshafen – Today]**

On this slide you can see a schematic picture of the Ludwigshafen Verbund site today in terms of inputs and outputs.

What do we need as inputs for production in Ludwigshafen? We require vast amounts of natural gas as an energy source to power our plants and as a feedstock for our products. We also require other fossil and inorganic raw materials. Today, renewable energy and renewable feedstocks still play a relatively small role.

As outputs, we currently sell significant volumes of several base chemicals to the market. However, we mainly use base chemicals within the Verbund to produce a vast range of around 8,000 downstream products for European and global customers. And, as a collateral output, the site emits about 7 million metric tons of carbon dioxide per year.

**[Slide 19: Thorough analysis of Verbund structures in Ludwigshafen over the last months]**

Based on 2021 figures, the Ludwigshafen site accounts for about 4 percent of Germany's natural gas consumption. In light of the large amount of gas we consume, it comes as no surprise that our competitiveness in Ludwigshafen suffers in times of elevated energy prices. European gas prices skyrocketed to unseen levels in August. Since then, prices have declined. But in the long run, we expect them to stay considerably higher than they were in the past years, particularly in comparison to prices in other regions, chiefly the United States and the Middle East. Furthermore, lower market growth in Europe has negatively impacted supply and demand dynamics in several value chains.

Ladies and gentlemen,

Therefore, in addition to the cost savings program we have initiated, we are also undertaking structural measures to make the Ludwigshafen site better equipped for the intensifying competition in the long term. We are doing this because we believe in the future of the Ludwigshafen site, which is now in its 158th year. We believe in the people who work here and we believe in the Europe region. Let me state this clearly: We remain committed to this site, despite all the speculation about a relocation – and have the courage to further develop it.

During the past months, we carried out a thorough analysis of our Verbund structures in Ludwigshafen. By assessing our asset base in detail, we reached a deep understanding of how to ensure the continuity of profitable businesses while making necessary adaptations. Let me now highlight the major changes we will be implementing.

**[Chart 20: Stepwise approach streamlines ammonia value chain while limiting impact on profitable downstream businesses]**

Let's start by looking at the ammonia value chain. Ammonia is the largest consumer of natural gas as a raw material. Currently, we operate two ammonia plants at the site.

Ammonia is an important input factor for caprolactam and thus for polyamide 6, adipic acid as well as nitrogen fertilizers. Caprolactam, in particular, has seen a tremendous buildup of capacities in Asia in recent years, especially in China. As a

result, European exports to Asia were already under pressure before the sharp increase in European energy prices. We must reduce our exposure to this market. We therefore intend to close our caprolactam production in Ludwigshafen.

The capacity of BASF's caprolactam plant in Antwerp, Belgium, is sufficient to serve captive demand and merchant market demand in Europe going forward. By closing the caprolactam plant in Ludwigshafen, we will significantly reduce captive demand for the precursor ammonia.

In turn, this allows us to close one of the two ammonia plants as well as associated fertilizer facilities. At the same time, we will use these changes as an opportunity to optimize our polyamide 6 production network and further strengthen this important business for the BASF Group.

High value-added products, such as our standard and specialty amines and the Adblue<sup>®</sup> business, will be unaffected and remain competitive. They will be supplied via the second ammonia plant at the Ludwigshafen site.

Let us now move on to the next value chain: adipic acid.

**[Chart 21: Reduction in production scope for adipic acid safeguards profitable captive offtake while enabling further asset optimization]**

As one of the main precursors of polyamide 6.6, adipic acid is an essential part of our engineering plastics business. In addition to serving captive demand, we sell production volumes to the merchant market. In recent years, however, margins in this part of the business have been steadily eroded due to overcapacities in Asia and lower than anticipated domestic market growth. This situation became even worse with the sharp increase in European energy prices.

In response to this changed market environment, we will reduce our adipic acid production capacity in Ludwigshafen and will close the precursor plant for cyclohexanol and cyclohexanone as well as the production of soda ash. With these measures, we will reduce our merchant market exposure while improving our overall earnings.

Adipic acid production at our joint venture with Domo in Chalampé, France, will remain unchanged and has sufficient capacity to supply our business in Europe. We will also continue to operate our polyamide 6.6 production plants in Ludwigshafen.

**[Chart 22: Closure of TDI plant addresses sharp input cost increase and lower market growth]**

The third value chain I want to address is the TDI production complex in Ludwigshafen.

Over the past years, both MDI and TDI have gone through significant demand and profitability cycles. Overall, market demand for MDI is healthy as expected and continues to grow. Demand for TDI, however, did not grow as expected and has been especially weak in Europe, Middle East and Africa. We do not expect this to change. As a result, our TDI complex in Ludwigshafen has been underutilized and has not met our expectations in terms of economic performance. This situation has further worsened with sharply increased energy and utility costs.

We have therefore decided to close our TDI plant and the precursor plants for DNT and TDA in Ludwigshafen. We will continue to reliably serve our European customers via our global production network with existing TDI plants in Geismar, Louisiana; Yeosu, South Korea; and Shanghai, China.

**[Chart 23: Planned measures structurally improve the competitiveness of BASF's Ludwigshafen site and contribute to net-zero target]**

As I mentioned earlier, we thoroughly analyzed our asset base in Ludwigshafen. All of the other value chains and plants will remain competitive in the long term, including the gas-based acetylene value chain, which is important for the site, and olefins from the two steam crackers.

In total, 10 percent of the asset replacement value at the site will be affected by the measures – and likely around 700 positions in production. However, we are very confident that we will be able to offer most of the affected employees employment in other plants. It is very much in the company's interest to retain their wide-ranging experience, especially since there are vacancies and many colleagues will retire in the next few years.

The measures will be implemented stepwise by the end of 2026 and are expected to reduce fixed costs by more than €200 million per year.

The structural changes will also lead to a significant reduction in the power and natural gas demand at the Ludwigshafen site. Consequently, CO<sub>2</sub> emissions in

Ludwigshafen will be reduced by around 0.9 million metric tons per year. This corresponds to a reduction of around 4 percent in our global CO<sub>2</sub> emissions.

**[Chart 24: Technical optimizations and substitution of natural gas significantly lower threshold at which the Ludwigshafen site must be shut down]**

Since the start of the Russian war against Ukraine, we have analyzed in depth what factors influence the gas consumption of our Verbund.

When the discussions about a potential gas shortage first arose, we said we would need at least 50 percent of our average consumption volume to operate the Ludwigshafen Verbund site. Faced with this situation, the BASF team creatively searched for and found solutions. Now, we are able to continue operations even if gas supplies were to drop as low as 30 percent of our average consumption in 2021.

Two examples of the optimization measures: Instead of natural gas, we use the by-product ethane from our steam crackers to feed our acetylene plant. And we recommissioned an idled section of the synthesis gas plant that is independent of natural gas.

I can assure you that we will not run out of ideas. We are now executing further projects that will reduce gas consumption in Ludwigshafen even more: By the end of this year, we will convert two of four natural gas turbines in our combined heat and power plants to allow operation with either natural gas or fuel oil. Gas allocation would nevertheless force us to shut down many production plants at the site. Under optimal conditions and with major gas consumers taken offline, we would, however, still be able to run the Ludwigshafen site at a supply rate of around 10 percent of our average gas consumption in 2021. Thanks to a possible partial conversion to fuel oil, we would thus be able to avoid a complete shutdown.

I want to congratulate the BASF team for their creativity, dedication and ability in developing such great solutions as in the past 12 months.

**[Chart 25: Key pillars to transform the Ludwigshafen Verbund site to net zero by 2045]**

Ladies and gentlemen,

Reducing the demand for natural gas is only one element in the transformation of the Ludwigshafen site.

We want to develop Ludwigshafen into the leading low-emission chemical production site in Europe and are initiating further changes needed to achieve this. The green arrows on this slide indicate the timelines for preparations and investments, while the extended arrows indicate that the transformation along that particular lever has more or less entered steady state.

We are exploring how we can best accelerate the transformation and how we can move forward most efficiently with regard to abatement costs. I can tell you: We are making good progress. As part of the grey-to-green lever, we will secure further supplies of renewable energy for the Ludwigshafen site. We are establishing the platforms and infrastructure that we need to supply the site with renewable electricity and hydrogen.

We are planning the use of heat pumps and cleaner ways of generating steam. In a transition phase, we are also looking into possibilities for using carbon capture and storage for hard-to-abate CO<sub>2</sub> streams before moving to carbon capture and utilization.

In addition, we will employ new CO<sub>2</sub>-free technologies, such as water electrolysis to produce hydrogen. And we plan to use the flexible entry options offered by our Verbund to switch from fossil to circular and renewable raw materials.

We are working towards net-zero emissions by 2045 for the Ludwigshafen site to comply with the German government's target. However, to achieve this goal, we are highly dependent on external factors over which we have little or no influence. To name just two examples: the timely availability of significant amounts of additional renewable energy and the public infrastructure that is needed to connect the Ludwigshafen site to supplies of hydrogen and electricity.



**[Chart 26: Verbund site Ludwigshafen – Vision for the future]**

Our highly integrated Production Verbund in Ludwigshafen offers great flexibility. That is what BASF has shown again and again over the past 157 years as we have changed raw materials from coal tar to coal and oil, from coal and oil to natural gas, and now to alternative raw materials and renewable energy. Once again, we want to build on the opportunities offered by the Verbund to ensure a successful transition.

Fossil resources will be increasingly replaced by renewable energy and renewable feedstocks. Production of base chemicals will be focused more on captive use within our Production Verbund, meaning we will reduce sales volumes to the market for some produces. The broad and varied portfolio of downstream chemicals will remain unchanged. Our products will have lower product carbon footprints thanks to the increasing use of non-fossil raw materials.

The CO<sub>2</sub> emissions from the site will be considerably lower. We will employ carbon capture and utilization to use a portion of the carbon dioxide that is emitted as a source of carbon for our production processes and thus generate our own raw materials.

Ladies and gentlemen,

Ludwigshafen will remain the largest and most integrated site in the BASF Group. However, in the future the site will focus more on supplying the European market. We are convinced that the measures we are taking will strengthen the long-term performance and resilience of the Ludwigshafen site.

**[Slide 27: Measures to increase our competitiveness]**

Ladies and gentlemen,

The measures I have presented today help us not only to secure, but to increase our competitiveness globally, and thus support BASF's future profitable growth.

In summary, we are initiating a cost savings program in Europe and undertaking smart changes to our production structures in Ludwigshafen. Together with the initiatives that are already running in our global service units, we will reduce fixed costs by around €1 billion by 2026.

These steps are part of the constant evolution that BASF has undergone repeatedly over its long history. We are driving change proactively. We are convinced that this will enable us to weather the economic storms around us and prepare BASF Group for the future.

**[Slide 28: Agenda]**

In my concluding remarks, I want to re-emphasize what BASF stands for.

**[Slide 29: What BASF stands for]**

You can rely on BASF to continue to deliver what it is known and respected for.

Connectedness lies at the core of BASF – and we are connected with customers, partners, employees and many other forces in society. We invented and perfected the Verbund to produce chemicals. The flexibility of our Verbund is clearly demonstrated by the measures we have taken and will continue to take to reduce our natural gas demand. We will build on the benefits it offers – both in Ludwigshafen and at our other Verbund sites worldwide.

Our global footprint with production assets close to our customers in all regions proves to be the right setup – in a world that is becoming increasingly multipolar. With our ongoing investments in China and the United States, we continue to improve our regional footprint. We are expanding our global presence in growing market segments, for example, in the battery materials value chain.

Our transformation towards net zero will enable us to provide our customers with a complete portfolio of products that have a reduced or even net-zero carbon footprint. This will differentiate us from our competitors. Here too, the Verbund plays an important role, and we will be supported by our powerful global R&D teams.

All of these things would not be possible without our employees. I am therefore proud that we can count on such a great team at BASF, and I thank the team for its commitment in these challenging times.

Thank you for your interest in our company and your coverage. For the Q&A session, I would now like to ask Melanie Maas-Brunner to join Hans Engel and me on stage. The three of us will be happy to take your questions.