

Dr. Martin Brudermüller  
Chairman of the Board of Executive Directors of BASF SE  
Press conference by BASF and RWE

Ludwigshafen, May 21, 2021

*The spoken word applies.*

Ladies and gentlemen,

I, too, would like to welcome you to our joint press conference with RWE. We have invited you here today to present a specific proposal on how we can together make progress on climate protection in Germany faster and, more most importantly, successfully.

Many of you report on us regularly. Thus, you also know that we have big plans: By 2050, we want BASF to become climate-neutral. More importantly, though, is getting a quick start at reducing CO<sub>2</sub> – because this will be a long and challenging journey! We have therefore set ourselves the goal of achieving a 25% reduction in our global CO<sub>2</sub> emissions by 2030, compared with 2018 levels. We want to accelerate our efforts!

Why is this so difficult? The chemical industry is one of the most energy-intensive industries there is. Chemical reactions are usually accompanied by major energy changes. Especially at the beginning of the value chains, in the basic chemicals business, there is an enormous need for energy. Chemical intermediates are produced from a few feedstocks – mostly

fossil feedstock and some inorganic raw materials. This can be imagined as a box of molecular building blocks from which BASF and the entire industry produce thousands of chemical products for many customer industries.

There are no alternatives to these basic chemicals in the industry. And the associated thermodynamics are also unavoidable: This immense energy demand leads to emissions of 21 million metric tons of CO<sub>2</sub> at BASF, with the Ludwigshafen site alone accounting for 8 million tons.

We have worked hard on potential technological solutions and our technology portfolio. We call this Carbon Management. We know that we can change our technologies – transitioning away from fossil fuels to electrical energy. This will mean the electrification of the entire chemical industry.

Let me give you two examples, so you have a better idea of what I am talking about.

The steam crackers are huge chemical plants that use steam to “crack” the long carbon chains of naphtha from the refinery at temperatures of 850 degrees Celsius into a few smaller basic chemicals. The cracker furnaces are currently heated with natural gas. With our partners Sabic and Linde, we have developed a cracker furnace that can be operated with electricity. If electricity from renewable sources is used, the CO<sub>2</sub> emissions resulting from the incineration of natural gas

can be almost entirely avoided. This equates to more than 3 million metric tons of CO<sub>2</sub> worldwide at BASF.

The second example is hydrogen. At BASF, we use around 1 million metric tons of hydrogen per year globally. There are two possible natural sources for this: water and methane, which is better known as natural gas. We want to use both technologies and utilize renewable energy in doing so. However, compared to methane pyrolysis, water electrolysis requires five times as much electricity per ton of hydrogen. This shows once again how important it is to be open to technologies. And as you can tell, we need many new electricity-based processes.

This is a massive undertaking with many technological challenges and entrepreneurial decisions. It requires courage and major investments to replace existing processes with new emission-free ones. We are thus embarking new technological learning curves, which are also challenging in terms of their profitability.

We are driving forward these changes worldwide. Today, 19 BASF sites worldwide are operated partially – or entirely, at some smaller sites – with renewable energy. But, especially at our major European Verbund sites in Antwerp and Ludwigshafen, this will be a herculean task. In Ludwigshafen, the world's largest chemical site, this will mean our electricity demand grows at least threefold by 2035 to around 20 terawatt

hours. This equates to around 15%<sup>[1]</sup> of the electricity generated from wind power in Germany today.

*[1] Source BMWi: Wind energy generated in 2020: 131 TWh.*

Ladies and gentlemen,

Without the availability of sufficient volumes of electricity from renewable sources at competitive prices, this transformation will not be possible! Not for us and not for society as a whole in Germany and Europe.

Without a rapid and systematic expansion of renewable energy capacity, great political dreams will be shattered. After all, with its Green Deal, the European Commission has presented a once-in-a-century ambition with unimagined implications for society and the economy. And there is certainly no shortage of dreams as the German government has also taken things a step further and targets a 65% reduction in CO<sub>2</sub> by 2030 and climate-neutrality by 2045! Without a plan for how to achieve this!

We are willing; that is not the issue. But we also want to remain globally competitive and successful in the future. And, ultimately, Europe will also need innovative chemical products to achieve the targets of the Green Deal.

It is therefore time for politicians to abandon their high-flying ambitions and finally get to work to bring these targets and ambitious ideas down to ground-level reality. We want to finally see a shift from talk to action!

Ladies and gentlemen,

This herculean task is only achievable with innovative and intensive cooperation between politics and industry. And it requires collaboration across the value chains. That is why Markus Krebber, Michael Vassiliadis and I are here together today and taking the initiative.

We need to accelerate the expansion of renewable energies and we are putting forward a proposal for how to make this transformation achievable. We want Germany and Europe to achieve this! In Germany, offshore wind energy will play a key role because of its availability and competitiveness. In a moment, Markus Krebber will tell you more about what we propose and plan.

We have two powerful German companies in leading positions – RWE in energy production and BASF in chemistry – who complement each other well and can handle the financial, technological and business aspects of the necessary measures. We are undertaking this project together and we do not want subsidies. But without support from policymakers, it will be impossible. We are optimistically curious to find out whether we can jointly and successfully realize a lighthouse project in Germany. Policymakers with courage and the drive for an enabling regulatory framework and RWE and BASF with forward-looking investments, the latest technologies and an integrated value chain-based approach. A plan for the future of emission reductions in Germany, for preserving the global

competitiveness of German industry and securing attractive jobs in Germany.

And now I will hand over to Markus Krebber, who will provide more details about our proposal.