



A Fresh Start, the Economic Miracle and the Dawn of the Age of Plastics

The post-war years are marked by streams of refugees, a shortage of housing and unemployment. City centers, residential areas and industrial plants lie in ruins. Reconstruction under Allied control is difficult and progresses very slowly. Production plants are dismantled, and the Allies, in particular the Soviet Union and France, confiscate goods as they come off the production line to satisfy their demands for reparations.

In May 1945, an 800-strong workforce starts production again at the Ludwigshafen site. Manufacturing permits are required by the French military administration, and raw material and fuel allocations are often more than meager. In November of the same year, the Allied Control Council orders the dissolution of IG Farben. After several years of demerger negotiations, Badische Anilin- & Soda-Fabrik is reestablished in 1952 as one of three successor companies of IG Farben.

The plan is to swiftly rebuild a sales network and expand production. BASF decides to build a new administrative building which is Germany's first skyscraper over 100 meters high – visible testimony to a new beginning.

After the establishment of the Federal Republic of Germany on May 23, 1949, the first German government under chancellor Konrad Adenauer prepares Germany's return to the west European community of democratic nations. Germans' acceptance of their new state goes hand in hand with an economic boom. Economics minister Ludwig Erhard is seen as the father of Germany's economic miracle. With the introduction of the deutschmark, Erhard declares the end of the planned economy and ushers in a social market economy. This means that 10 years after the end of the war, the West German economy can stand on its own two feet again, strengthened by currency reform and the Marshall Plan. In 1955, growth reaches a peak of 11.7 percent.

Growth in the plastics segment in the 1950s and 1960s is phenomenal. Between 1953 and 1959 alone, annual plastics production in West Germany more than triples. Backed by its prewar research results, BASF is able to take a leading position in this development. Perlon and nylon – polyamide synthetic fibers discovered before the war – register sensational sales in the 1950s. Polyethylene is similarly successful. The use of polyethylene film for packaging launches a development that also revolutionizes the entire method of production in the chemical industry. The raw material ethylene can only be made in large amounts and cost-effectively from oil and natural gas. The age of petrochemicals begins. By the end of the 1950s, BASF paves the way for its first production facilities abroad with the production of Styropor, a product developed from polystyrene in 1951 that proves a huge success worldwide.

1964

The Ludwigshafen and Oppau sites lie in ruins in 1945, flattened by 65 air raids and more than 40,000 bombs. One-third of the plants are completely destroyed, and the rest is badly damaged. A starving, freezing and war-weary population begins to rebuild the site. Little by little, buildings are reconstructed and production restarted.

BASF employees rebuild their site: Foreman Rudolf Schuster and pipe-fitter Otto Söber in the Oppau gas plant



1945

1946

1947

The first postwar works council elections take place in 1947. The close cooperation between employee representatives and management, especially during the years of reconstruction, leads to the adoption of a series of social policies that are laid down in the first works agreement in 1955.

Carl Wurster (1900 – 1974, chairman of the Board of Executive Directors between 1952 and 1965) describes the reestablishment of BASF in 1953 thus: "The years of reconstruction between March 1945 and the currency reform of June 21, 1948 have surely been the most difficult years in BASF's history. What we have achieved would have been unthinkable without the dedication of the entire workforce, who carried out their challenging duties loyally under difficult conditions and with far too little food."

BASF's workforce rises to 21,951 by 1948.

The severe explosion of a rail tanker in the southern part of the site claims more than 200 lives and destroys many newly completed buildings.

The southern tip of the Ludwigshafen site after reconstruction

1948

A new area of application is launched in 1949: The herbicide U46 is marketed after three years of tests at BASF's Agricultural Research Station. U46 is a selective herbicide mainly used in cereal crops.

Patent for Styropor



1949

1950

1951 sees the discovery of a plastic destined to conquer the world's markets: Styropor. The rigid white foam is 98 percent air and captures air's key attribute: its excellent insulating properties. Civil engineers and packaging designers alike are enthusiastic. The foamed plastic material is just as popular for insulating roofs, walls and ceilings as it is for packaging fragile china or frozen foods.



1951

After protracted demerger negotiations, Badische Anilin- & Soda-Fabrik is founded as one of three successor companies of IG Farben on January 30, 1952. Although the company's headquarters have not been on the Baden side of the Rhine River in Mannheim since 1919, the traditional name is adopted again and is to remain for a long time to come. It is not until 1973 that the Annual Meeting adopts a resolution to update the company's name to BASF Aktiengesellschaft.

A new company philosophy is also needed. Within the IG Farben conglomerate, Ludwigshafen was for a long time mainly a supplier of raw materials and a manufacturer of high-pressure equipment. The non-existent administration needs to be established, business areas restructured, expanded and redeveloped. And, crucially, export markets need to be developed.

1952



The first Styropor is produced in these molds made from shoe polish cans.

From the Annual Report 1952: "The reconstruction of the Ludwigshafen site continued to make good progress in 1952 and is approaching completion in the most important areas. Reconstruction has been carried out according to a long-term plan that also enabled fundamental modernization, which will be reflected in both higher production volumes and lower production costs in the next few years."

In **1953** in collaboration with Deutsche Shell, BASF founds the first German petrochemical production plant, Rheinische Olefinwerke GmbH (ROW), in Wesseling on the Rhine River between Bonn and Cologne. The company mainly produces the plastic polyethylene under the BASF trademark Lupolen. Oil displaces coal as a raw material for chemical syntheses. Hydrocarbons produced from oil have demonstrated their benefits. From now on, BASF's chemists refine oil, oil derivatives and natural gas. In Germany too, a new era in chemistry begins: the era of petrochemicals.

From the Annual Report **1954**: "We must be prepared to carry out certain manufacturing projects abroad in the near future in order to keep pace with developments. We assume that such measures will also benefit our international business over the long term."

In **1955**, BASF acquires new rest homes for its employees. Along with the original facilities close to Ludwigshafen, convalescent homes now exist in Breinau in the Black Forest and in Westerland on the North Sea island of Sylt.

The synthesis of hydroxylamine by catalytic hydrogenation of nitrogen oxide with hydrogen in **1956** makes it possible to produce caprolactam, a precursor for synthetic polyamide fibers, cost-efficiently. Stockings made of this material become affordable. Engineering plastics with exceptional properties can now be developed. The properties of the Ultramid range, for example, feature high strength and high melting temperatures. These products are used as top-quality electrical insulating materials for a wide variety of components and machine parts.

In **1957**, BASF builds a 102 meter-high office block, a clear symbol of reconstruction and a fresh start. The Friedrich Engelhorn building is Germany's first skyscraper built with reinforced concrete. Its simple design is remarkable. The façade consists of 11 million tiny glass mosaic tiles. The sales department moves into the Friedrich Engelhorn building in March. According to the Annual Report, "The working conditions are pleasant, the building operates economically, and the short distances ensure organizational simplicity." The BASF skyscraper becomes a Ludwigshafen landmark. In 1996, the façade is replaced by a glass and aluminum skin.

For the first time since the war, BASF starts building production facilities outside Germany in **1958** and opens up new markets by establishing joint ventures. BASF and Dow Chemical jointly set up Dow Badische Chemical Company in Freeport, Texas, which produces basic chemicals and fiber intermediates, and later fibers. The joint venture, which Dow exits 20 years later, forms the springboard for BASF's current U.S. operations. In France, BASF founds Dispersions Plastiques S.A. with French partners to manufacture Styropor and acrylate-based polymer dispersions. In Argentina, Sulfisud S.A. is established in collaboration with local companies for the manufacture of dyestuff auxiliaries such as hydrosulfite or Rongalit. BASF Group companies continue to operate in France and Argentina.

BASF shares are listed on the Paris stock exchange at the end of **1959** and in early 1960 on three Swiss exchanges in Zurich, Basel and Geneva. BASF in Brazil: Idrongal, founded by BASF and Brazilian partners for the production of polymer dispersions, Styropor and textile auxiliaries starts operating in Guaratinguetá in 1955. With 12 production plants making more than 750 products and a total annual capacity of 260,000 metric tons, Guaratinguetá is currently BASF's largest site in South America.

In **1960**, BASF supplements its range of dyes in line with developments in textile fibers. It adds Palanil and Basacryl for dyeing synthetic fibers to its existing dyes for wool and cotton. Other developments follow: Six years later, the first Cottestren dyes are developed for cotton/polyester blends. In 1978, the range is extended to include dyes suitable for printing these blends. The breakneck pace of growth during Germany's economic miracle leads to a labor shortage and the country looks for migrant labor from abroad. The federal labor office opens a branch in Italy in 1960, the same year in which BASF hires its first Italian employees. These are followed by workers from Spain, Greece, Yugoslavia and Turkey, as well as Brazilians of German extraction and Vietnamese refugees. Today BASF employs around 2,300 non-Germans from 79 countries.

Portable music: One of the first transistor radios made of Lupolen, a BASF polyethylene



Runaway hit of the 1950s: Women's stockings made of nylon/Perlon. Slot machine for stockings in Berlin, 1953 (Photo: Ullstein)

Once the tallest building in Germany: BASF's Friedrich Engelhorn building



1953

1954

1955

1956

1957

1958

1959

1960



Entering the age of oil together: BASF builds ROW, a plastics production facility, in collaboration with Shell in Wesseling.



The Freeport site in the 1960s



View of the dyeworks of the textiles applications department

1961 sees the launch of Floranid, the first synthetic organic slow-release fertilizer.

BASF's research facilities are re-organized in 1962. The plastics and dyestuffs laboratories become independent units alongside the two traditional facilities: the central research laboratory and the ammonia laboratory. This means key application areas can be more closely integrated. At the same time, the link between research and departments responsible for production and applications is enhanced.

In 1963, Yuka Badische Company Ltd. begins producing Styropor in Japan. Due to the hurdles facing non-Japanese companies in the Japanese market, the plant is operated as a joint venture with a Japanese partner. BASF takes the same approach in its other Japanese operations, and it is not until 1988 that BASF opens its own plant for the production of auxiliaries. Today, around 37 percent of BASF's sales in Japan are from products manufactured in the country.

From riverside to seaside: BASF establishes a site in Antwerp, Belgium, in 1964. It soon becomes BASF's second largest European site. Easy access to raw materials and excellent transportation links to overseas customers fuel this development. The site produces fertilizers, fiber intermediates, plastics and chemicals.

A brand new selective herbicide for use in sugar beet cultivation, Pyramin, is launched in 1964.

"Explaining chemical and physical processes scientifically, performing plant projections, identifying the optimal operating conditions for chemical processes, swift accounting and administrative processes, data processing for documentation purposes" – these are the new tasks of the punch card center described at the inauguration of BASF's first computer center. The technology is new too: The last tabulating machines are replaced by electronic mainframe computers.

New horizons in environmental protection: After lengthy trials with various types of furnace, the first two rotary furnace residue incinerators start operating. Today, eight furnaces play a key role in BASF's waste disposal concept.



Determining the color and color strength of textile dyes

1961

1962

1963

1964



BASF's Antwerp site in 1968 and today



View of a laboratory in the 1960s: No sign of computers yet



Key punch operators at BASF's computer center